TROPICAL FEBRILE SPLENOMEGALY AND ITS SURGICAL TREATMENT.*

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Some ten years ago, when I first had the honour of addressing this Association, I referred to a class of cases associated with splenomegaly which appeared to differ from the splenic enlargements caused by chronic malaria. This subject has, since that time, been constantly before my mind though little time could be devoted to investigating the disease. At the last meeting of the Association a paper was presented on my behalf dealing more particularly with the matter, and I now shall venture to return to it once more, but dealing on this occasion mainly with the question of surgical treatment. Unfortunately, this does not imply that the problems of etiology and diagnosis are already settled. Far from it, we have made little progress in this direction, and my own feeble attempts I have as yet had insufficient time to tabulate.

Let me recapitulate very briefly the main features of the disease. The patients are generally young to middle-aged men, workers in the fields—children and women are decidedly less commonly infected. The patient usually states that the disease began with "ague" fever lasting for a few days or at most weeks and accompanied by enlargement of the spleen. The fever, it is stated, has not recurred, but I shall give you reason to doubt whether this is really correct. Often no further history is obtained, and sometimes not even so vague a history as this. One may be told that the spleen has enlarged gradually without any illness or attack of fever. Not infrequently it is attributed to drinking cold water when heated, and in our local dialect the splenic tumour is commonly called tsûi-lau—water tumour.

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In other more severe cases one is told that fever has been frequent, and accompanied by yellowish discoloration of the eyes and possibly of the whole body.

The condition of the patient at the stage he comes to hospital is probably somewhat as follows:—

General condition: unhealthy, earlhy complexion without definite jaundice though possibly some colouring of the conjunctiva, muscles wasted and flabby, skin dry and inelastic. Patient denies fever but is often found, even when strenuously denying it, to have a temperature of 100°F., or more. This loss of febrile sense is particularly noteworthy because it is extremely common in these patients and must be remembered when considering the history of such a patient, who states his illness to have been afebrile after the first attack of ague-like fever. The chest is wasted and in strong contrast to the distended abdomen. On examination of the latter the spleen is found greatly enlarged, often reaching to the right iliac crest. The liver is also enlarged, probably reaching down two-thirds of the way to the umbilicus. The legs are slightly oedematous. The urine is quite free from albumen and does not give the tests for bile. Urobilin may be present (whether this is always the case I am unable to state). The stools contain ankylostome eggs in a larger proportion of cases than that of the general population. Epistaxis is common, haematemesis is rare, dysenteric symptoms, probably only a complication, are relatively common.

In regard to the blood picture: erythrocytes are greatly reduced, leucocytes are extremely variable, never increased to any extent, and often decidedly reduced in number. Mono-nuclear cells are relatively numerous.

I have here pictured an average case. In advanced cases muscular debility is great and weakness extreme, ascites occurs and is often enormous, the liver may have retreated again under the ribs, anaemia is still more marked, and extensive dropsy of the lower part of the body is constant.

An acute type is sometimes met with, but in children only, judging by my own experience. In such cases a high remittent fever is found, the skin is olive tinted, emaciation is very rapid, and the difference—almost from day to day—of the wasting chest and limbs, and the rapidly growing abdomen, is most extraordinary. The spleen is enormous as also is the liver, the patient dying before there is time for the latter to again contract.

The disease we are dealing with is, I believe, without exception met with in field (rice-field) workers, and probably always among the poorest of the population. To those interested in the subject I would strongly advise the careful study of the reports of this disease that come from Egypt (see Transactions of the Society of Tropical Medicine, July 1912, and British Journal of Surgery, January 1914). These are, I believe, the only satisfactory accounts of the disease to be found at present in general medical literature. There is only one complaint to be made against the Egyptian observers, and that is the absurdly
unsuitable name—Egyptian splenomegaly—that they have given to a disease which is widely distributed probably in all parts of the tropical and sub-tropical world. The name we have adopted here is not a satisfactory one, but it is, at least, free from this very objectionable feature.

Evidently before we deal with such a serious matter as the surgical treatment of this condition we must first deal with the question of prognosis. Still further, before prognosis is considered it is essential that diagnosis should be established, and here, unfortunately, comes the crux of the whole difficulty. Speaking for South Formosa, the disease is relatively a common one, so common in places that it would quite invalidate any attempt to judge of the malarial incidence by the splenic index. But then splenomegaly from malaria is still more common and, taken all round, an enlargement of the spleen is one of the most frequent pathological conditions that we meet. Thus in 1913 we had about 100, or 3½ per cent., of our in-patients, seeking admission—on account of great enlargement of the spleen—to the Tainan Hospital. But many times that number of patients, who were admitted for a variety of other complaints, were found to be suffering from a gross enlargement of that organ. By gross enlargement I mean, roughly, cases where the spleen reached at least half way to the umbilicus, and such an enlargement would by the people themselves be considered very trivial.

It is evident then, that out of the mass of splenomegalies, it becomes very important to isolate the group with which this paper deals, before we can satisfactorily consider the ultimate prognosis of the cases as a whole, and therefore the duty to recommend serious surgical procedures. Unfortunately this most important part of the problem remains quite unsolved, and it is not proposed in this paper to attempt to make any contribution to its solution. I hope at some later date to be able to record a little work along this line, but what has been done needs tabulation and very careful consideration before committing it to paper.

On the other hand we can do a little in the negative line to reduce the bulk from which these cases have to be picked out. These are not simple cases of chronic malarial spleen which condition probably forms the bulk of our splenomegalies. These simple malarial spleens yield well and rapidly to adequate treatment, and, even if not disappearing altogether, respond to treatment in a way which the spleens of febrile tropical splenomegaly do not. Further, I have no doubt in my own mind that they are not cases of kala-azar. So far kala-azar has not been found in Formosa. These patients have in some cases been
examined by spleen or liver puncture, and in others by smears of spleen pulp, and I have never been able to find a Leishman body by either method. This does not exclude the possibility of kala-azar being present in the mass of splenomegalies, though this I doubt; but I think it is sufficient to negative such a diagnosis for these special cases.

We are then in the extremely unsatisfactory position that with the exceptions of the groups given above, no precise rules for differential diagnosis of febrile tropical splenomegaly can, at present, be enunciated. This must, of course, affect enormously the questions of prognosis and treatment. It is easy to say that this is a fatal disease, and the cases only prove themselves to be genuine by terminating in liver cirrhosis and ascites, all others belonging to some different category. But this is very unsatisfactory from two points of view. Thus, on the one hand, one is inclined to delay surgical treatment until such interference is in itself dangerous, or on the other hand to risk a serious operation which might be unnecessary. There are some reasons, too, for believing that the disease in its early stages may be amenable to medical treatment.

After pondering the subject for long I have come to the conclusion, for myself, that for the present the more serious operations should be advised only for the two following classes:

Cases of splenomegaly with marked enlargement of the liver and leucopenia, or at least relative reduction of polymorphonuclear leucocytes; cases of splenomegaly with early ascites and a similar blood picture.

Further, operation is permissible but scarcely to be advised in cases of more advanced ascites, as the death rate in such patients is likely to be very high.

The question will necessarily be asked: Are there no comparatively simple operations such as omentopexy, or drainage of the abdomen into the thighs through the femoral canals, available for the treatment of ascites? I must confess that after a considerable experience of such operations I have entirely abandoned them. Only once have I seen any apparent benefit follow from this form of treatment. The case was a young man with marked ascites. On section the spleen was greatly enlarged and the liver in a condition of "hobnail" cirrhosis. Omentopexy was performed and improvement followed on the operation. Five years later the man was still alive, still had a little fluid in his abdomen, and was a chronic invalid. In all my other cases the operation has proved of no benefit whatever.

The surgical procedure for tropical febrile splenomegaly is splenectomy. Performed in the pre-ascitic stage, it holds out good hope of a permanent cure. With the advent of ascites the operation becomes
much more dangerous, and the mortality is not likely to be less than 50 per cent. In still more advanced cases, splenectomy is probably nearly always fatal.

Before dealing with the operation in detail, which is the main object of this paper, I should like to record a typical case of successful operation.

Lim Goan, male, act. 18, was admitted to the Tainan Hospital on November 15th, 1913, suffering from febrile splenomegaly.

**History:** Ill three years. Began with "fever" for a month. Before this says he had no enlargement of the spleen. Ever since it has gradually got larger. Fever has recurred throughout his illness. For the last month has been getting much weaker and rapidly losing flesh.

On admission: Thin, earthy complexion, almost constant remittent fever, very weak, pulse rapid and thin. Spleen, greatly enlarged, reaches nearly to iliac crest. Liver, three fingers’ breadth below costal margin.

Operation was advised and agreed to, but patient seemed too weak to risk it and the treatment was delayed. Later he rallied and splenectomy was performed on December 23rd. Patient stood the operation well and the change, immediately after, of the pulse in slower rate and improved volume was most remarkable. Unfortunately the blood was not examined until after the operation.

Patient left hospital on February 6th. Fat, good colour, and in every way a healthy lad. Slight tendency to diarrhoea, probably from excessive eating.

I have seen him several times during the past year, he has appeared perfectly well and has followed the occupation of a coolie with its attendant heavy manual work. Part of the temperature chart while in hospital is here given.

And now I wish to deal very fully with the details of the operation, as in the ordinary text-books there is a lack in this direction, in reference to these cases of enormous spleens, which is very trying when one is called on to perform so critical an operation.

**Preliminary Remarks.** Before dealing with the operation step by step, may I first refer to the question of time. I regard speed as a
matter of great importance in all abdominal procedures, especially those in which great areas are exposed; unfortunately, the tendency of late years has been to consider speed of comparatively little importance.

From a large experience of abdominal work, unhappily including many failures, I would counsel abdominal operators to first study to be quick and then study to be quicker. Essentials must never be neglected, and our own little individual fads of technique may quite permissibly be cultivated after we are quite au fait with any special operation; but when we are dealing with a critical operation like splenectomy in a patient who is probably in an utterly unsatisfactory condition for operative procedure, it is most important that everything be done with as much speed as possible. No unessential detail should be allowed to interfere with this rule, if success is to be attained, and much does depend on success in our earlier cases.

**Anæsthesia.** Chloroform or ether will be used according to the personal preference of each surgeon, but, for myself, I consider it a sine qua non that a preliminary injection of morphia, hyoscine (scopalamine), and atropine be given. There are few operations where the tendency to post-operative pneumonia is so marked as after splenectomy, and this appears to be due to the enormous area of diaphragm that is necessarily exposed. Whether the action of such exposure is a direct one or a reflex one does not matter to us. By thus keeping the lungs clear from all extra secretion and so ensuring quiet respiration, the hypodermic injection goes a good way towards obviating the danger in these cases.

**Incision.** By far the most satisfactory incision is one parallel to the linea alba and two fingers' breadth to the left of it. A preliminary incision is made anywhere in this line above the umbilicus and rapidly enlarged with scissors up to the costal margin and down far enough to give free access to the lower end of the spleen. In one of my cases I made a second incision at right angles to this about the level of the umbilicus, and carried it out to the left loin. It was really quite unnecessary in that case, and it is doubtful if it ever would be required. If the abdominal muscles are properly relaxed the vertical incision is all that is needed, and an incision at right angles to this adds much to the time required for closure of the wound.

**Examination of Spleen.** The spleen is next examined for adhesions by sweeping the hand round it in situ, and any of the usual small adhesions are broken down in this way from the outer and upper surfaces. The question of more serious adhesions will be dealt with later on when considering complications.
Evisceration of Lower End of Spleen. The assistant now puts in his hand under the lower end of the spleen and lifts this end out of the wound. It must be noted that, throughout the whole operation, the assistant’s work is of the very utmost importance and without a trustworthy assistant it is better not to attempt splenectomy. On his handling of the spleen, and on his utmost care in handling it, depends to a great extent the success of the operation. The spleen itself is easily torn, especially if adherent, and a tear may give rise to fatal haemorrhage; it did so in the first case of splenectomy I attempted. Further, the veins of the pedicle are often as large as one’s finger and their walls no thicker than tissue paper, and any sudden dragging on the pedicle may rupture one of these and so cause fatal haemorrhage.

Separation of Lower Leash of Vessels from the Pedicle. The pedicle of the spleen is formed by the vessels that enter the hilum, and the peritoneal layers, one in front and one behind, that cover these. In many cases, the tail of the pancreas, nestling against the centre of the hilum, practically enters into the pedicle, and it also, in these cases, frequently contains small masses of spleen tissue—spleniculi—which add seriously to its bulk. If the upper reflection of peritoneum is short, the cardiac end of the lower curvature of the stomach lies against the upper end of the hilum and requires to be carefully avoided. In a large spleen the hilum may be eight or ten inches long, and the pedicle being made up as mentioned above, it is quite evident that no attempt should in these cases be ever made to seize it in a single pair of forceps. The following method has in my own hands proved the simplest and quickest, but of course it may need modification as occasion arises. The first step is, however, quite straightforward. A large leash of vessels leaving the central part of the pedicle runs almost parallel with the long axis of the spleen itself to the lower pole of that organ. These vessels should be separated from the rest of the pedicle, and divided between ligatures.

Evisceration of Spleen. The dividing of this leash of vessels completely frees the lower pole of the spleen, unless important adhesions are present, and allows the whole mass of the spleen to be turned out of the abdominal cavity. This must be gently but firmly done and is much helped by the operator passing his left hand between the diaphragm and the upper pole of the spleen and so lifting it out.

Securing and Dividing the Pedicle. The evisceration of the spleen brings the whole of the pedicle easily within view except its upper border. This should now be carefully defined, the stomach, if need be, being separated off. At this stage it is helpful to define exactly the
remaining limits of the pedicle by passing the finger behind it until it finds its way all round. The surgeon then knows exactly what remains to be dealt with, and at any moment can, if need be, control the pedicle with a single large pair of clamp forceps. This knowledge gives great confidence in completing the operation, which can now be done without further risk, as any severe haemorrhage can be immediately controlled. At this stage my own rule of procedure is as follows. The peritoneum over the front of the pedicle is torn through, and any easily isolated vessels are caught with pressure forceps and divided. The tail of the pancreas is, if possible, defined and care taken not to damage it. The remainder of the pedicle, which is now small, is seized with clamp forceps and the spleen cut away. The less important vessels are tied off, and the clamped pedicle transfixed, if this can be safely done, and tied. If this appear difficult, each vessel must be caught and tied separately, and it is a good plan to close the end of the pedicle by a running suture through the tissues distal to the clamp before this is removed. The latter manœuvre implies that an appreciable amount of tissue has been left distal to the clamp, and this will not always be possible.

Examination of Pedicle and Splenic Area for Bleeding. The bed of the spleen is now sponged out, and very careful and systematic examination made to see that all vessels are well secured. A failure to do this may cost the patient's life, as it did in my second case in which an inefficient ligature slipped from one of the veins and the patient died of haemorrhage after being put back to bed.

Suture of the Abdominal Wall. This is one of those matters in which the surgeon should be ready to sacrifice his personal predilections for the sake of the patient. Should the operation have been quickly finished, and the patient in good condition, the operator may suture as many layers as his fancy pleases. A single row of interrupted sutures is in nearly all cases efficient and takes far less time; nothing more than this amount of suturing should be done if the operation has been long or the patient's condition bad.

The steps of a straightforward operation may thus be summarised:—
1. Incision.
2. Evisceration of lower end of spleen.
3. Separation of lower leash of vessels from pedicle.
4. Evisceration of whole of spleen.
7. Examination of pedicle and splenic area for bleeding.
8. Suture of abdominal wall.
Certain questions arise and complications may be met with in the course of the operation. The most important of these are:

(a) Forceps versus ligature in dealing with the pedicle.

(b) The problem of the pancreas.

(c) The question of adhesions.

We shall now deal with these seriatim.

Much discussion has arisen as to the relative values of ligaturing the vessels individually, or catching between pressure forceps and tying the proximal end after removal of the spleen, also on the question of clamping the pedicle. The most eminent surgeons are hopelessly divided on these questions, which itself suggests that there is not a great deal to choose between these methods. Time is of the utmost importance, and forceps are quicker than ligatures. Forceps, however, unless very carefully applied, may be very much in the way of further progress, and so in the end prove slower than ligatures. It is probably impossible to lay down a general rule, but I am guided myself by the following considerations. If a vessel is easily separated from those around it and a ligature can be quickly applied I prefer to divide between ligatures. If, on the other hand, the vessel can be reached only with difficulty and the application of a ligature would be tedious, I prefer dividing between forceps. The matter of clamping the pedicle is rather different. The question has often been judged from the point of view of those dealing with spleens only moderately enlarged. For spleens of 3 lbs. weight and over I believe it is a physical impossibility to properly control the pedicle with a single pair of clamp forceps. But after considerably reducing the size of the pedicle, clamp forceps may be used with great advantage as outlined above. It must be remembered that whatever form of control is used it must—except for the final clamp or ligature—be applied with equal care on the distal as well as the proximal side of the vessel. Unless this is carried out bleeding—and probably enormous bleeding—occurs from the spleen, which is little else than a great sponge saturated with blood. Such haemorrhage will not be in itself dangerous to the patient, but the whole operation area becomes flooded with blood, the further steps of the operation are obscured, and it is hard for the surgeon himself to keep the perfectly steady head that the operation requires.

The problem of the pancreas is also one about which much dispute has occurred, and on which different views are entertained. Some speak very lightly of damage to this organ, others consider the matter one of great importance. Unfortunate experience has compelled me to adopt entirely the latter view. All injuries to the tail of the pancreas—
and sometimes these are inevitable—should be carefully attended to. Escape of pancreatic secretion into the peritoneal cavity is liable to give rise to a low form of peritonitis, which is none the less fatal. It is therefore very important to examine the pedicle after the spleen has been removed, and if the pancreas has been damaged to cover it well with peritoneum or omentum. If there has been evident wounding of the organ it would be wise to drain the bed of the spleen by a tube brought out through the loin. Otherwise, drainage should not be employed.

The third problem of serious importance is that of adhesions. Happily, in more than half the cases no adhesions are met with. On the other hand, it is said that they may be so dense as to make the completion of the operation impossible. I have not, as yet, met such a case. Adhesions may be met with either on the internal aspect of the spleen, in which case the stomach and descending colon may be firmly adherent to it; or on the surfaces abutting on the walls of the abdominal cavity, in which case vascular bands may unite the spleen to the diaphragm and abdominal wall. The first-named adhesions can always be separated by careful dissection, though with an unfortunate expenditure of time; except for this latter they add little to the risk of the operation. Minor adhesions to the abdominal wall can be separated by sweeping the hand round between the spleen and the abdominal wall, as is done with similar adhesions in operations for ovarian cyst. I have not as yet met with bad peritoneal adhesions and can only mention what the authorities say on the matter. There is no subject in surgery on which such an extraordinary conflict of opinion exists. Here are two of the diverse opinions:

"More than one case is recorded in which death has resulted from continued oozing from the raw surface left by the stripping of adhesions."—Moynihan, Abdominal Operations.

"Practically, the bleeding from adhesions is not profuse or important. It soon stops when the spleen is removed, and never requires drainage."—Richards, Spleenectomy in Egypt.

CONCLUSIONS.

1. There is a disease met with in Formosa, China, Egypt, and other places, characterised by progressive enlargement of the spleen accompanied by fever, and separate, though distinguished only with difficulty, from other diseases causing splenomegaly in the tropics. For want of a better name we propose at present to retain that of febrile tropical splenomegaly.
2. The disease commences with enlargement of the spleen which is soon followed by enlargement of liver. In the early stages it may possibly be amenable to medical treatment. It is certainly curable by splenectomy.

3. Finally, in a certain proportion, possibly all the cases, it passes on to contraction of the liver with ascites. The prognosis after operation at this stage is very doubtful, but without operation, and in cases beyond the reach of operation, the disease is always fatal.

4. The operation of splenectomy, if careful attention be paid to detail, is not very dangerous in suitable cases, and the result, if successful, is well worth the risk run.

5. There is urgent need for systematic investigation into the diagnosis, prognosis, and etiology of this disease.

APPENDIX.

Since this paper was written some more material of much interest in connection with the questions here raised, has come to hand.


Dr. Finkelstein describes cases very similar to ours here, though he ascribes the whole condition to malaria. With his pathology I cannot agree, but his remarks on splenectomy deserve the closest consideration. His mortality even in non-ascitic cases is high (35 per cent.), which he attributes to the very reduced condition of the patients when they come for treatment. The same unfortunately applies to our cases here. With regard to ascitic cases he says:

"My experience shows that an operation is permissible where the percentage of haemoglobin is not less than 30 to 40 per cent. and the number of red corpuscles not less than 2,000,000; where there is no oedema of the lower limbs; where the patient is still able to move about; and where there is no parenchymatous inflammation of the lungs or serious degeneration of the liver. Unfortunately we have no exact means of determining the condition of the liver. When there are serious changes in the liver and kidneys, splenectomy, even in otherwise favourable cases without adhesions, gives fatal results. But if the operation ends favourably, ascites disappears entirely.

2. An unpublished investigation on the subject of 104 cases of splenomegaly in the Swatow region by Dr. Duncan Whyte, from which he very kindly allows me to quote. The paper is of the greatest interest, but the cases probably include only a few of those to which we are referring here, as Whyte finds that terminal ascites is comparatively rare.
He summarises the results of his investigations as follows:

1. That, in spite of a careful consideration of the symptoms and an examination of the blood, it is impossible to say whether the Swatow patients were suffering from malarial cachexia, histoplasmosis, or some hitherto undescribed condition.

2. That one or more cases of splenic anaemia may have been included in the 104 Swatow splenomegalies because the clinical differentiation of these conditions is impossible.

3. That if the cases which have been described are malarial cachexia, then some of the signs which have been found useful in India in differentiating malarial cachexia from kala-azar—e.g., the ratio of the leucocytes to the haemocytes—do not apply to patients in South China.

3. An investigation, very brief and incomplete, into the after histories of some of my cases of splenomegaly with and without ascites.

Roughly the results are as follows.

A. Ascites cases:

| Total 23; average age 34 years. |
| Dead, 20 = 87% |
| Died within a month of leaving hospital ... ... ... ... 11 cases |
| Died from a month to six months after leaving hospital ... ... 8 cases |
| Died in 1½ years—stated to be from the same disease ... ... 1 case |
| Still Living, 3 = 13% |

Less than 2 years since leaving hospital, abdomen still large but not now requiring frequent tappings. Unable to work. Will probably be ultimately fatal ... ... ... 2 cases

Well and strong, 1 case. This case is so remarkable that a fuller note must be given of it:—A woman, aged 33 years. In hospital 5½ years ago with ascites; tapped once; fluid did not collect again immediately. Returned 2 years later with a similar condition; tapped again with an equally satisfactory result. Since her last visit to the hospital her general health has improved greatly. She now feels quite well, and one year ago had a full term healthy child.

B. Splenomegaly without Ascites.

| 13 cases (many of these had enlarged livers). |
| Dead ... ... ... ... ... ... ... ... ... ... 4 = 31% |
| (average 15 months after leaving hospital) |
| Alive but unable to work ... ... ... ... ... ... ... 6 = 46% |
| Alive and able to do hard work ... ... ... ... ... ... ... 3 = 23% |
| Total number of patients unable to work, or dead ... ... ... ... ... ... ... 10 = 77% |

The numbers under both A and B are too small to be of great value, but they give some indication of the after histories of these cases.

Discussion:

In the discussion which followed the reading of this paper, Dr. Whyte said that he had made a careful study of the symptoms and the state of the blood in numerous cases of this condition, and was still unsettled in his diagnosis of a considerable proportion. It was most difficult to differentiate them from certain other diseases in which the spleen is enlarged, as stated more fully in his paper of which Dr. Maxwell had given an abstract. Further work was necessary.

Dr. Houghton considered that the thanks of the Conference were due to Dr. Maxwell for his interesting contribution to a very obscure subject. The study of enlarged spleens in China is a very complex matter. In certain areas, such as Shantung, Honan, and perhaps the
north generally, there are one or two fairly clear-cut pictures, but in
the Yangtse Valley and farther south, clinical data become very much
confused. After one has subtracted from the records a certain number
of splenomegalies due to schistosomiasis, those due to chronic malaria
and to kala-azar, there is still a residuum of cases unexplained, to
which we may apply the term Banti's Disease—whatever that may
be. A careful collaboration of studies on this important subject during
the next b'ennium might well be undertaken by the Research Committee
and others particularly interested in this subject, and the results
presented to the next Conference.

Dr. Cormack drew attention to a disease in children, reported by
Dr. Aspland, which had been designated "infantile kala-azar." These
cases are not infrequent in the north of China. The symptoms are
anaemia, enlarged spleen, ascites to a slight extent, and infection of the
gums followed by a form of oral necrosis not unlike that of cancerum
oris. In some of these cases Leishman bodies had been found, but not
in all.

Referring to Dr. Maxwell's question as to the diagnostic signifi­
cance of a changed ratio of the white and red cells of the blood, Dr. S.
Cochran said that his own cases had all shown a considerable increase
of whites above the normal ratio. But as some observers had reported
a higher proportion of leucocytes than is usual in cases of kala-azar,
the significance of this disproportion must be regarded as still unsettled.
As to the form of splenomegaly in Shantung, he thought that a large
number of the cases were probably kala-azar, as every observer who
had looked carefully found Leishmania at least in some instances. So
with the Peking cases mentioned by Dr. Cormack. The search for the
parasite is often very tedious, even in spleen punctures, and a negative
result is not always conclusive though the examination has been long
and careful. He found the parasites in one case after a search which
lasted three hours. He urged that, after all splenectomy operations,
sections of the spleen should be made for microscopic examination, as
in this way the parasites, if present, could almost certainly be demon­
strated. In 25 out of his 27 cases the search was successful. As to
age, the majority of his patients were under twenty, and several were
young children. Passing to the utility of splenectomy for Leish­
maniasis, he said the operation would certainly not get rid of the
infectious material as this was widely distributed through the body. It
is possible, however, that some of the symptoms in Leishmaniasis
and other forms of splenomegaly may be due to functional over­
activity of the spleen, and where this is the case splenectomy might
conceivably help the patient considerably by improving his general
condition, and so enabling him to overcome the infection.

Dr. Cole also emphasized the importance of making careful post­
mortem examinations whenever possible in all diseases accompanied by
marked enlargement of the spleen, and of microscopically examining
sections of the spleen after every splenectomy. He asked Dr. Maxwell
if microscopic examination of smears and sections of the spleen had
been made in his cases.

Dr. Maxwell replied in the affirmative, and said that the parasites
of kala-azar had not been found, even after the most careful search.
Sandflies (Phlebotomus) in China and Their Relation to Disease.*

Preliminary Considerations on the Identification and Distribution of Sandflies in China, with Special Reference to *Phlebotomus papatasii*, Scopoli.

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My interest in sandflies was first painfully stimulated four years ago during our initial summer in China. At that time I simply accepted them as one of the annoying pests of North China and did not connect them in any way with disease. After making their unwelcomed acquaintance my respect for the mosquito was rather enhanced. As Bishop Bashford aptly expressed it at Peitaiho, "The mosquito is a gentleman and a scholar compared with the sandfly." The former usually announces its presence and can be dismissed with a wave of the hand; but not so with the ubiquitous sandfly who approaches silently and almost invisibly, swift of wing, and attacks one most subtly even in the privacy of a good mosquito-curtain and tightly drawn bed-clothes. Only after a sleepless night, when one discovers female sandflies engorged with blood clinging to the inside of the mosquito net, does one realize who the invaders really are.

The sandflies make their appearance in Peking and vicinity from about the middle of May until the first weeks in June, and remain, in varying numbers, throughout the hot summer months. They are very abundant in certain sections of the city, notably in reconstructed Chinese houses in the neighborhood of old crumbling buildings and walls. In the evening and early morning they are often seen in the dark corners of the bed-rooms. During our first spring, while living within the confines of the Methodist Mission in Peking and at Tsing Hua College, very few sandflies were noted. Since then they have been observed in annoying numbers in both places. The old temples in the hills west of Peking swarm with sandflies. At Peitaiho, a seaside resort on the gulf of Pechihli about 15 miles south of Chinwangtao, these insects annually feast upon the good missionaries, especially new recruits, and babies. The severe inroads which were made upon my own family, and the untoward symptoms which seemed to be associated with the bites in a number of newcomers and children, led me finally to the belief that there was more than a chance coincidence between the bites of the flies and the unpleasant symptoms which followed in not a few cases.

During that first summer at Peitaiho a large number of babies were bitten so badly about the face, hands, and legs as to make their

condition bear a superficial resemblance to measles. The children not only suffered intensely from the local irritation of the bites but a considerable number exhibited a sudden short febrile reaction, injected conjunctivæ, and great restlessness. Some of them had diarrhœa. In adults similar symptoms, together with severe frontal headache, were also noted. These cases were occasionally followed by a long period of depression. All of them eventually recovered.

At that time explanations other than the sandfly bites were given to account for the symptoms. In children it was thought that the bowels were the primary seat of the trouble. In adults "the sun" was mentioned as an exciting cause. No one then, so far as I have been able to discover, connected the sandfly bites with the other symptoms. It is instructive to note that the pioneer missionaries and "old China hands" not only suffered less, or not at all, from the sandfly bites, but also exhibited no such symptoms as appeared in the new arrivals. My observations since then have convinced me that many, if not all, of the cases at Peitaiho with this peculiar symptom-complex following sandfly bites, were really suffering from so-called "Three Days' Fever," now better classified as Phlebotomus or Pappataci Fever.

The following spring, at Tsing Hua College, I had an excellent opportunity to observe the attacks of sandflies. The College is located about four miles outside the northwest city gate (Hsicilumên) of Peking, on the line of the Peking-Kalgan Railroad adjacent to the ruins of the Old Summer Palace. In our compound there were at that time approximately 600 persons, of whom 400 were Chinese students gathered from all parts of the country. The American teachers and their families contributed 28 members, the remaining number of the community being school officials, cooks, coolies, etc. During the last week of May and the first weeks of June, the sandflies put in their appearance on our compound and remained until school closed for summer recess. Practically all of our American teachers were bitten more or less, and a few of them suffered severely. A considerable number subsequently exhibited indefinite symptoms of brief fever, frontal headache, lassitude, etc., while a few showed typical symptoms of pappataci fever.

A most interesting and striking fact was that none of our students who were born and raised in North China appeared to suffer from sandfly bites. At most the bites were insignificant and given but passing notice. Those of the northern students who happened to be bitten developed no symptoms of pappataci fever. In fact it seems that the natives of this vicinity enjoy an immunity both from the bites and fever. On the other hand, students from South and Central China—
from Foochow, Canton, Shanghai, Nanking, and Hankow, not only suffered much from sandfly bites, but in a considerable number of instances symptoms developed in from three to six days after the bites which we now regard as characteristic of Phlebotomus fever. Every case of this malady which came to my attention recovered in from three days to a week without serious sequelæ. A few cases were quite prostrated for some days, and continued weak for a fortnight or so afterwards.

After this preliminary experience with sandflies, I began to make enquiries among my medical colleagues in and around Peking as to whether they had encountered similar cases of disease during the sandfly season. All admitted the prevalence of sandflies in this vicinity and had seen many cases in which their bites proved very annoying, but only two or three with whom I talked suspected the sandfly as the carrier of the virus which causes the short febrile reactions here noted. I gathered that this fever had been classified under various headings, e.g., "simple febricula," "three days' fever," "pyrexia of uncertain origin," "summer influenza," and "Peking fever." It is true that among the British troops at Hongkong, Tientsin, and Peking this malady had been recognized. Captain Dive of the British Legation Guard, and Dr. Douglas Gray, physician to the British Legation in Peking, both regarded the sandfly as transmitter of this peculiar fever. Dr. Gray in his Health Reports has placed it fifth in the list of prevalent Peking fevers. In the Report on the Health of the British Army for 1911, 54 cases resembling "sandfly fever" were noted in the Hongkong returns. It is highly probable that these, if true cases of pappataci fever, were imported from India where "sandfly fever" is most prevalent. The sandfly has not yet been definitely identified in or around Canton.

In 1910, Birt clearly pointed out that a large number of cases reported from Malta and Crete as "simple continued fever," "pyrexia of uncertain origin," "summer influenza," etc., were in reality typical cases of Phlebotomus fever, and his contention has since been fully verified by other observers. He showed that this fever prevailed in regions where Phlebotomus papatasii were known and reached its highest incidence during the sandfly season. Before this—in 1908—a commission consisting of Doerr, Franz, and Taussig had thoroughly investigated a similar fever among the soldiers quartered in Herzegovina and along the Adriatic, and Doerr proved conclusively the mode of transmission. The experimental results of these careful investigators are most convincing and should be read by all interested in this subject.
I am personally indebted, however, to Dr. R. A. Hill, formerly of the Union Medical College in Peking, for first calling my attention definitely to the etiological relationship between sandfly bites and so-called "three days' fever." He very kindly showed me his notes on a case which he had studied, and directed me to the literature upon the subject. Dr. Stanley of Shanghai was most helpful in securing further references and in loaning me some valuable articles. Captain Dive also generously placed in my hands a number of papers from the *Journal of the Royal Army Medical Corps*. After this introduction to a most absorbing subject, it occurred to me that it would be desirable to make more extensive enquiries as to the distribution of sandflies in China and their possible relation to certain indefinite fevers here. It was important to first learn in how far the flies had been definitely identified and studied in China, and to gather from reliable physicians their opinions regarding the relation of the flies to disease. For this purpose a set of questions was formulated and sent out to a considerable number of physicians in different parts of China. These questions appeared in the *China Medical Journal* and were translated for the *Chinese Medical Journal* of Canton. Whenever occasion arose I personally quizzed medical men about sandflies.

While the results of this investigation, on the whole, are not very extensive, still enough data were gathered to warrant a tentative statement as to the general distribution of the sandflies in China. The results here tabulated have also been plotted on the accompanying distribution map, which it is hoped will be made much more complete and useful by the returns from my questionnaire at this meeting. It is seen that sandflies are practically unknown, or at least have not been distinctly recognized, in South China. They are exceedingly rare along the Yangtze River. There seems to be a gradual increase in prevalence as the North is approached, which reaches a maximum along the line from Peking and Tientsin to Tongshan, Peitaiho, Chinwangtiao, and Shanhaikwan. Reports from Formosa and Chosen (Korea) thus far indicate that the flies have not been recognized there.

In North China these biting flies are well known to the Chinese who call them 白蛉子 (pai ling-tse), but aside from their irritating bites they have never associated the sandflies with any definite disease. As far as I have been able to learn from my informants, no one had definitely identified the Phlebotomus here, nor described entomologically the Chinese species of this biting fly. Very few of the native physicians had associated the bites with any disease. It is probable that the flies popularly known as "sandflies" in some localities may belong
to other genera of biting flies, and that even those which may be classified as *Phlebotomus* are species other than *papatasii*. This can only be settled by a direct examination of the flies. It therefore became imperative to capture some of the insects of North China to make a careful study of them before proceeding with this investigation.

An excellent opportunity for capturing the sandflies came last summer while I was attending the Summer Conference of the Y. M. C. A., at Wo Fu Ssu, a temple in the Western Hills a few miles from the New Summer Palace. In this old temple and its environs the sandflies find an excellent habitat for propagation. With the presence of a large number of students during the height of the sandfly season, an abundance of good pabulum is available for the flies. I succeeded in capturing there a considerable number of well-fed females and a few males. The pleasure was also afforded me of witnessing the oviposition of a number of mature ova. Unfortunately the proper conditions could not then be maintained for their development. Although I searched high and low in various places about the temple I could not discover a single pupa or larval form of the fly. This was not so discouraging as it might have been, as all observers testify to the great difficulty of finding these forms. Later in the summer I secured some male *Phlebotomus* in a latrine at Tungchow, twelve miles east of Peking. Typical specimens of these flies with a few explanatory notes are herewith presented for the inspection of members of this Conference. To obtain an adequate idea of their structure they should be studied carefully under both a No. 3 and No. 6 objective.

Specimens of the flies were also sent to the Tropical Diseases Bureau at London for exact classification. The director, Dr. Bagshawe, kindly forwarded some of them to the Imperial Bureau of Entomology of the British Museum. A reply has been received from Mr. Guy A. K. Marshall, its director, dated London, July 31, 1914. In this letter he says, "You are quite correct in supposing that the insects which you have sent are species of *Phlebotomus*, and I am now despatching them to Prof. Newstead for identification." He adds, "I may say that we shall be very glad to receive from you any blood-sucking insects which you may come across, as very little is known concerning the Chinese species." While in the United States this fall I showed my specimens to several entomologists and all agreed that they were *Phlebotomus*, but hesitated, without further study, in pronouncing them of the species *P. papatasii*. I have anxiously awaited Prof. Newstead's verdict, but I presume conditions in his country just now have temporarily diverted his attention from sandflies.
Phlebotomus papatasii, Scopoli.
Fig. 1. Imago, approximately natural size.
Fig. 2. Male, enlarged, from life.

Phlebotomus perniciosus, Newstead.
Fig. 3. Pupa, approximately natural size.
Fig. 4. Pupa, enlarged
Fig. 5. Abdominal tubercle of pupa.
Fig. 6. Squamose spines, abdominal segments of pupa.
Phlebotomus papatasii, adult male.

Body of adult male Phlebotomus, showing male genitalia.

Microphotos by A. A. Heinz and K. A. Bolt, Tsing Hua College.
Head Parts of adult male Phlebotomus.

Head Parts of adult female Phlebotomus.

Microphotos by A. A. Heinz and K. A. Bolt, Tsing Hua College.
Sandflies in China.

I should like to add, however, that in the meanwhile I have been thoroughly studying my specimens and comparing them with the detailed descriptions and admirable illustrations (presented with this paper) given by Newstead in his monograph on "The Pappataci Flies (Phlebotomus) of the Maltese Islands." From this study I have concluded that the sandflies of North China very closely resemble the Phlebotomus papatasii already described. There are several minor features in which they appear to differ but, in my non-technical opinion, not enough to constitute a new species. An expert entomologist, however, might stretch them into a new variety.

In order that the medical profession in China may become more familiar with the characteristics of sandflies I am presenting herewith a number of photographic reproductions of Newstead's drawings and plates which were published in The Journal of the Royal Army Medical Corps, together with some photographs of my own specimens. It is hoped that sufficient interest will be aroused in this subject to stimulate the physicians of this Conference to answer fully the questions which appear as an insert to this paper. From these answers we may learn much more exactly of the distribution of sandflies in China and their relation to certain diseases which at present are poorly understood.

A brief summary of the essential characteristics of Phlebotomus may not be out of place here. This, together with the beautiful line drawings of Newstead, and the mounted specimens from North China, should give one a good idea of this interesting species. The most exhaustive treatment on the morphology of Phlebotomus was given by B. Grassi (1907), and a very complete monograph on "Das Pappataci Fieber" presented by Doerr and Taussig in 1909. As these publications are inaccessible to most of us, and are quite expensive, we must be content to turn to digests of them, and to literature nearer at hand. The admirable paper by R. Newstead gives a very good summary of the species drawn from original sources, and his own experience. A working classification and brief description of Phlebotomus together with a treatment of "Pappataci Fever" is given in the latest edition of their "Manual of Tropical Medicine," by Castellani and Chalmers.

The genus Phlebotomus was first definitely established by Rondani in 1840, although other observers had assigned the species in which it occurs to other genera. Even as early as 1786 Scopoli had identified this insect and classified it as Bibio papatasii. The salient features of the genus are as follows:—
All members of the group are small insects with relatively large wings and long legs. The wings and body are abundantly supplied with hairs or scales. The *Phlebotomus papatasii* is very hairy both of wing and body, and the legs are long and slender. The hairs stand out from the body in little tufts. The flies are from 2 to 2.5mm. in length. The mouth parts of the female are beautifully formed for piercing and sucking. There is a sucking stomach in close proximity to the mid-gut. Sexual dimorphism is well marked with highly differentiated genitalia. The male is provided with three sets of claspers, superior, inferior, and an intermediary appendage. The terminal segment of the superior, or dorsal, clasper is provided with five long spines, three of which extend from the tip and two are given off about the middle of the segment. The intromittent organ lies between the intermediate appendages and from it, extending up into the ultimate segment of the body, is a well marked ejaculatory duct. This is continued into the penultimate segment, and leads to a curiously constructed "pompetta," which, it is claimed, regulates the output of semen. The external genitalia of the female consist of two pairs of hairy claspers, superior and inferior. The fully matured ovaries appear as leaf-like structures which fill a large part of the abdominal cavity.

The eyes and clypeus are very prominent, the eyes being intensely black. Palpi consist of five segments, the basal one being quite small, and often obscured by other structures in mounted specimens. The segments are covered with small scales and hairs. The last two segments exhibit the scales arranged in an annular form. The antennae are long and filiform and are made up of sixteen articulated segments. The wings may be taken as a very convenient feature in identifying the species. They are to be distinguished from other species by the peculiar branching of the second longitudinal vein, the first bifurcation taking place near the middle of the wing instead of in the root, and the second branch distal to this about one-fourth the distance from the first bifurcation to the tip of the wing. The male wing is somewhat smaller and narrower than the female. For other details of morphology reference should be made to the literature on the subject already noted.

In a subsequent paper I hope to present the clinical evidence I have accumulated which points to the sandfly as an etiological factor in certain short fevers of North China, and at the same time give a review of the experimental work already done to prove that the sandfly is the carrier of the virus of pappataci fever.
Sandflies in China

BIBLIOGRAPHY.

A very complete bibliography is given in the Yellow Fever Bureau Bulletin, Vol. II, No. 1, July 1912. Published by the University Press of Liverpool, 57 Ashton Street, Liverpool.

For a synopsis of the genus Phlebotomus, see Summers in Journal London School of Tropical Medicine, 1913, April, Vol. II, Part 2, pp. 104-116. A good list of references is given in Transactions of the Society of Tropical Medicine and Hygiene, Vol. VI, No. 7, June 1913, following an excellent article on "Phlebotomus Fever and Dengue," by C. Birt.

REFERENCES IN TEXT.


2. Ibid.


7. Ibid.


9. See Ref. 4.

10. See Ref. 6.


DISTRIBUTION OF SANDFLIES (PHLEBOTOMUS) IN CHINA.

<table>
<thead>
<tr>
<th>Province</th>
<th>City</th>
<th>Prevalence</th>
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<tr>
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<tr>
<td></td>
<td>Kashing</td>
<td>Not observed</td>
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<tr>
<td></td>
<td>Hangchow</td>
<td>Very abundant</td>
</tr>
<tr>
<td>Chihli</td>
<td>Peking</td>
<td>Very abundant</td>
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<td></td>
<td>Tientsin</td>
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<td>Paotingfu</td>
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<td></td>
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<td>Changteh</td>
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</table>
Dear Doctor:

Kindly consider the following questions, answer them as fully as possible, and return them at your earliest convenience to Dr. Richard A. Bolt, Tsing Hua College, Peking, China. Specimens of the "Sandflies" from your district would also be greatly appreciated.

1. Are "Sandflies" (Phlebotomus) prevalent in the district where your work is carried on?
2. At what period of the year are they most annoying?
3. Have you been able to identify definitely the species to which the "Sandflies" of your vicinity belong? If so, mention their essential characteristics.
4. If you have made any study of the morphology, habits, and life-history of the "Sandflies" in your district kindly give a digest of the same.
5. Have you noticed in the locality where these "Sandflies" are prevalent the presence of a "Three Days' Fever," characterized by sudden onset, severe frontal headache and indefinite body pains with moderate prostration, rapid rise of temperature and relatively slow pulse, the conjunctiva being injected; these symptoms subsiding quite rapidly on the third or fourth day, leaving the patient quite weak, but resulting in no serious sequelae?
6. Have you been able to account definitely for this peculiar fever?
7. Have you been able to determine whether persons suffering from this fever had previously been bitten by "Sandflies"?
8. Do you personally think there is any etiological relation between the "Sandfly" bites and the presence of the "Three Days' Fever"?
9. Have you done any experimental work to determine such relationship? If so, have your results been published, and where?
10. Do you find that persons bitten by "Sandflies" subsequently suffer less from the bites, and if they have had the "Three Days' Fever" enjoy immunity from it?
11. Will you kindly mention any references in the literature which has recently come to your attention regarding "Three Days' Fever"; Pappataci Fever; Phlebotomus Fever; Sandfly Fever; Summer Fever? If you have had any experience with this disease, copies of your case histories and clinical charts would be greatly appreciated.

The China Medical Journal.
Whenever our hospitals fail as active and successful evangelizing agents, then do we fall short of our highest aim in coming to China as medical missionaries. In the final analysis, very few of us would have come to help a backward nation solve its medical problems, or even to lessen the sufferings of thousands of its individuals, if we did not have an underlying, overmastering longing to help establish Christianity in their midst. Recently, when Dr. Mott was in China in the interest of the Edinburgh Continuation Committee, the All-China Conference which met in Shanghai passed the following resolution:

"Our Lord Jesus Christ has laid upon His church as a primary duty the preaching of the Gospel to all nations. Times come in the history of nations when their need of the message of life becomes manifestly urgent. It is such a time in China now, and in God's providence there is an opportunity corresponding to the urgency of the need. A great door and effectual is open for the direct preaching of the Gospel. While fully recognizing the great evangelistic value of the educational, medical, and other institutional work, the Conference considers it urgently important at the present time to provide for, and to safeguard, the maintenance of an adequate supply of workers, both Chinese and foreign, for the organization and prosecution and extension of purely evangelistic work, and urges that a due proportion of funds be allocated for the effective equipment of this purpose."

The object of this paper is to take exception to the position that the missionary preacher is the healer of the souls of the people, and the missionary doctor the healer of their bodies. I hope to show that, with the possible exception of the magnificent work among the students done by the Young Men's Christian Association, the hospital offers as many opportunities for 'purely evangelistic' work as any other form of Christian endeavor on the mission field, and some plans will be suggested which can be used to make the most of these opportunities.

One of the first advantages that the hospital has over the other branches of mission work is that it touches intimately large masses of people, who frequently come from long distances. In an address before the last Student Volunteer Convention in Kansas City, Dr. George B. Archer, of Ranaghat, Bengal, said of his tremendous work in India: "These patients come to us from more than three hundred different villages, usually within a radius of seventy-five
miles. It would take a missionary a year to go the rounds of these villages from which the patients come to our dispensary in a single morning." He further states that in a single day his hospital force of workers has treated as many as a thousand out-patients, and held in the dispensary chapel as many as five separate Christian services.

These people not only come in great numbers, and from a wide range of territory, but they hear the Christian message oftentimes under the most desirable conditions. Especially, as they convalesce from their diseases, are they in a favorable frame of mind for understanding and receiving the Gospel.

The hospital has to do with two classes of people, in-patients and out-patients, and the opportunities they offer for evangelism are quite different. In this paper, illustrations will be taken from our hospital work at Yangchow, only for the sake of definiteness, and with no intention of setting it up as a model, for there are many other mission hospitals in China much older and very much more extensive in their achievements.

The out-patients are seen by the doctor every day at two o'clock in the afternoon. At half-past one, after their registration card has been assigned, and their 50 cash paid by those who are able, they are required to listen to a half hour's preaching of the Gospel. This preaching is done by a Chinese evangelist, and the foreigner does not attend the meeting. The men and women coming for the first time hear the Gospel in their own tongue spoken by an earnest Chinese Christian, before their minds are distracted by sight of the foreigner. Many people claim that although this meeting of out-patients, once each day, does reach enormous numbers in the aggregate, yet it makes little impression upon them, because their minds are filled with the thought of their diseases. This to a certain extent is true of those who come for the first time, but even if they go away and never return, they have at least once listened for a half an hour to the Gospel Story, and with these, as Dr. Mackenzie has said, the result has to be left with God. But, as the figures below will show, a large number of these out-patients return a second and a third time, and often many times, to this afternoon clinic, and always they must first listen to Christian teaching before the doctor sees them. Here, too, they are urged to purchase copies of the Gospels, and to read them for themselves. In the address already mentioned, Dr. Archer makes the following striking statement, "I know of no place so useful for disposing of Christian literature as the dispensary of a medical mission."
After the preaching, these patients are shown back to the clinic rooms where the foreign doctor and his assistants see them. If the doctor in charge is absorbed by a longing to have them understand and accept Christianity, and if he has succeeded in communicating this state of mind and heart to his assistants, the kind treatment these out-patients receive will surely impress them, and will help them to remember the teaching they have just heard.

There is still one class of out-patients who require special mention—those who have undergone some operation in the clinic, and who have to return day after day for dressings. They are required to present themselves at the hospital by eight o'clock in the morning, in time for the morning prayer service. In order to make them come promptly, there is a rule that if they come too late their dressings have to wait till next day. These men and women have an opportunity to sit quietly, with the convalescent in-patients, and hear morning after morning the presentation of the Life of Christ. The Chinese translation of the Harmony of the Gospels, by Stevens and Burton, is used at these services, and some individuals come frequently enough to hear it through from beginning to end.

In our Yangchow clinic, for the ten months from January to November, there were 14,426 visits made by 6,472 different patients, thus showing an average of a little over two visits per patient. Many hospitals represented here could show larger figures than these, but we mention them in order to point out that even in as small a work as ours, more than six hundred different persons every month are brought into close touch with the Christian Evangel.

We come now to that more important group, the in-patients, who present the great field for medical evangelism. They are divided into two classes, the ward patients who come from the daily clinics, and the private-room patients, who come from the wealthier homes. These in-patients on admission to the hospital are, like the out-patients, generally indifferent to the claims of the Gospel, anxious as they are concerning the healing of their bodies. But, after their operations (the large proportion are surgical cases), and as they begin to walk about before going home, they receive the Gospel message from many angles. They have a copy of the Bible beside their beds for reading throughout the day, and during the dressing of their wounds or at ward rounds, they are shown kindness in acts of sympathy and service such as many of them have never known before. Each day at eight o'clock they are required to attend the morning service, and many of them do it cheerfully. At this service the foreign doctor himself speaks. This is his
supreme opportunity. His chances each day for direct preaching of the Gospel to fifty, sixty, or a hundred people, in the early morning hour, are such as few evangelists know. He has already been able to show personal kindness to all present, and for some of them he has been the means of saving their lives. If the foreign doctor lives his whole life with his high spiritual ideal always before him, and if he prepares constantly for this morning service, there is no estimating the actual results from this "purely evangelistic" work. His Chinese evangelist can be kept stimulated to high spiritual living and to constant personal effort, and all his Chinese assistants can each day be kept in close touch with the spiritual purpose of the hospital.

This attitude, pervading and permeating the life of the hospital, makes it much easier for the doctor and all his assistants, as they do their medical work from day to day, to gradually reveal to the individual patients what Christ Himself can mean to them.

In conclusion, I wish to mention two obstacles which stand in the way of successful evangelism. One is the difficulty we have in securing suitable assistants, and the other is our failure to keep in touch with the patients after they have returned to their homes.

As to the assistants, the question rests in large measure upon the kind of example set them by the doctor in charge, but even if his influence is all that it should be, there are still many problems yet unsolved. Some doctors take a definite stand that they will employ no assistants except those who are already Christians and baptized members of the Christian Church. This probably is the best plan to pursue, as a whole, but frequently such assistants are difficult to secure, and sometimes they prove disappointing. On the other hand, some hospitals accept good men who are not Christians, in the hope that they will soon unite with the church. Often these too are a failure, as they are not infrequently led to be baptized in order to retain their positions, and without having gone through the necessary experiences of repentance and belief. As we doctors more and more recognize the paramount importance of our Chinese assistants, realizing what a power they are for good or for evil, we will give ourselves more than ever to the task of leading them out into a firm faith in Christ, and into a willingness to witness for Him during all their many labors from day to day. If they scoff and laugh and sneer at our faith behind our backs, then much that we do and say in the hospital will be wasted.

In dealing with the problem of following up our cases back to their homes, we are also face to face with one of our most serious weak-
Medical Evangelism.

nesses. We have all read with the greatest interest and appreciation Mrs. Hume's account of the work the Yale Hospital at Changsha is doing towards reaching out and serving the life of the city. The more our hospitals do of this sort of service the larger contribution we will be making towards the establishment of the future, enlightened, native Chinese Church.

We have been trying at Yangchow an experiment which we hope will shed some light on how to bring our patients into vital touch with the church, after they leave the influence of the hospital. One of the foreign pastors makes ward rounds every night with the doctor and his Chinese staff. He sees the patients come into the hospital, and he watches them each night as they progress through their convalescence. In this way he learns to know them, and they gradually associate him very closely in their minds with the benefits they have received. As each patient prepares to leave the hospital, this minister makes a careful record of his name and address, and finds opportunity some time during the day to have at least one talk with him. The aim is to have the patient brought into direct touch with the native evangelist in his district, or to have the foreigner himself visit his home on the next itinerating tour. If followed up properly these old hospital patients ought to offer fertile nuclei for the opening up of new out-stations.

In our women's work we have a Chinese Bible-woman who constantly visits the homes of our former patients, and each Sunday during good weather our foreign nurse accompanies her. They have already visited practically all the villages surrounding Yangchow within a radius of 18 or 20 li, and each time, as messengers of the hospital, and as welcome guests, they have had glorious opportunities of preaching, sometimes to nearly all the inhabitants of the village, who with natural curiosity came together to see the visitors.

These plans have not been in operation long, but we hope they will lead to still larger opportunities in carrying out the evangelistic purpose for which we have given our lives.

As the China Medical Missionary Association, we are not working for the present, but for the future. We are hoping by our hospitals and dispensaries and medical schools not only to open the eyes of the Chinese to the possibilities of medical education and reform, but also to make our contribution towards firmly establishing Christian faith and practice in the life of their nation.
A SUGGESTION TOWARDS EFFECTIVE FOLLOWING-UP OF HOSPITAL ENQUIRERS AND BELIEVERS IN A COUNTRY DISTRICT.


In the register of in-patients let special care be taken to indicate the whereabouts of the village of each patient who shows a genuine interest in the Christian faith. The name of the nearest market town is the best guide, and some indication of the distance and direction of the village from that town. These details must be carefully revised by the evangelist or some one specially appointed to do it before the patient leaves. They may have been given carelessly, or purposely inaccurately, on arrival.

If a proper map can be made of the district showing all the market towns this will be a great help, but failing this a schematic or diagrammatic map should be made. It will be easy to mark the positions of all the walled cities and large towns and start with this as a basis. On this map must be marked the position of each enquirer's nearest market town, from particulars of distance and direction from his hsien supplied by himself. This will be near enough for the purpose of the map. Having marked in his market town with a circle and the name in full, the position of his village in relation to it must be ascertained and marked with his number and year in the hospital register. (Thus 123/14, would mean patient No. 123 in the hospital register for the year 1914.)

In this register should be found his name, age, name of village, particulars of illness and treatment, and every detail of interest concerning his spiritual condition.

By degrees it will be found that quite a cluster of numbers congregate about a given market town. Now is the time to call in the help of a keen evangelistic colleague, foreign or Chinese, or to send the hospital evangelist, or even for the doctor to break away if necessary and stay a week, or a month even in that market town (it may be opening a small field hospital for the town), but visiting each patient, introducing him to all the others, getting the keenest and best informed to realise his duty to the others, and taking as many as will come to preach in each village and in the market town. In this way in course of time small churches will spring up one by one all over the district or, where there are already churches in the centres, patients may be linked to them and introduced to the older Christians and workers.
Biennial Conference.

CHINA MEDICAL MISSIONARY ASSOCIATION.
BIENNIAL CONFERENCE.
Shanghai, February 1st-5th, 1915.

RECORD OF PROCEEDINGS.

On the Sunday preceding the Conference, special sermons on the subject of medical missions were preached in several of the Shanghai churches. At the Cathedral, the Dean, Rev. A. J. Walker, made an eloquent appeal to all members of the medical profession to co-operate heartily with medical missionaries in the work of the Christian church. At the Union Church, Dr. J. C. Garritt of Nanking referred sympathetically to the Association's loss by death since the last Conference, of no less than nine members. "They stand among the men of faith named in the eleventh chapter of the Hebrews." Other sermons were preached by Dr. Main and Dr. Balme.

On Monday evening, February 1st, a reception was given to the delegates, their hosts and hostesses, by the members of the Shanghai branch of the C. M. M. A., assisted by their friends. The pleasure of the occasion was increased by an admirable musical entertainment.

Tuesday, February 2nd, 1915.

The opening session of the Biennial Conference of the China Medical Missionary Association was held in the Martyrs' Memorial Hall of the Y. M. C. A. building, Shanghai, on Tuesday, February 2nd, 1915.

The chair was taken by the President of the Association, Dr. D. Duncan Main, at 9 a.m. The devotional part of the meeting was conducted by Dr. M. D. Eubank, who dwelt on the necessity of missionaries keeping ever before them the vision of their high calling. At 9:30 a.m. the meeting proceeded to business. The following were elected to serve as secretaries of the Conference:—Dr. R. V. Taylor, of Yangchow; Dr. Harry Taylor, of Anking; Dr. E. M. Merrins, of Shanghai. Later, Drs. Whyte, Snell, Morris, and Tyau were appointed to send reports of the Conference to foreign and local newspapers.

The address of the president was then presented.

After thanking the Association for its consideration and goodwill, he urged that it must review the plan of campaign and see what modifications of our line of advance are rendered necessary, because of changed and changing conditions, in the field and at the home base, and also look out upon the ground to be possessed, and find out how
best we may place our forces to possess it. We shall have to ask if with the forces at our command, the lessening number of recruits, and the occasional secession from our ranks, and the very great difficulty of retaining our qualified assistants, we had not better fortify our present work, rather than attempt further conquest."

He then gave an interesting summary of the advances in medicine and surgery which had been made since he first came to China, and indicated some of the problems in medicine and surgery still to be solved. Passing to the needs of the Association as an organization, he expressed the fear that its present position if not actually critical was certainly most serious. "We have failed to obtain a national organizing secretary to guide our policy and keep in touch with our interests all over the country and also keep us in touch with one another, and one another's work. Without such a man I feel that the Association will never make the progress it ought to do, and has the ability to do, if that ability were properly focussed, and then developed. We are sadly lagging behind in our translation work which is of vital importance to our existence as an Association, and unless those who have the talent for this work—and there are some who have—are prepared to make a sacrifice and give themselves to it in a way that hitherto has been unknown, I feel very strongly that those of us who believe in teaching medicine to the Chinese in their own language will have to admit we cannot do it as it ought to be done, and as we know it can be done. Our books are being translated and printed far too slowly, and some of those that are translated sadly need revising, and some also need to be rewritten or withdrawn. And so far we have done almost nothing towards the issuing of a medical journal in the Chinese language, which is very much needed."

Attention was next drawn to the problems of medical education. He then dwelt on the privileges, encouragements, joys, anxieties, responsibilities, and opportunities of the medical missionary, and closed with the words, "It is easy to reach the people, gather a crowd, manifest a practical sympathy for human suffering, make a reputation through our highest and best type of medical work, but we have to be careful not to forget to put the Gospel of the Grace of God first and foremost, and ever tell our patients to 'seek first the Kingdom of God and his Righteousness.'"

As the address in printed form was in the hands of members, it was taken as read.

The secretary of the Association, Dr. H. H. Morris, read his biennial report, which on motion was accepted. (For Report in full,
see p. 114.) The secretary next read the Minutes of the last meeting of the Executive Committee of the Association. Accepted.

The report of the Publication and Terminology Committee presented by Dr. McAll, with a particular recommendation from the same committee presented by Dr. Cormack, on motion was referred to a special committee.

The report of the editor of the China Medical Journal (see page 116) and the report of the Business Manager (see page 119), were read by title, as the reports in printed form were in the hands of members.

It was moved by Dr. Cousland, and seconded by Dr. Neal, that a Nominating Committee of five members be appointed to nominate all committees called for by the Conference, and to report to the Conference on all points requiring action contained in the reports of retiring officers. DRS. Eubank, James Maxwell, Cormack, MacWillie, and Evans were elected as this committee. Later in the day it nominated the following committees which were approved by the meeting;—

Committee to deal with the report of the Publication and Terminology Committee,—Drs. Beebe, Todd, Cole, Balme, and Yen.

Committee to report on schemes of preventive medicine,—Drs. Houghton, Peter, Wu Lien Teh, Osgood, and Hume.

The following resolution, moved by Dr. Neal, was adopted by a rising vote:—

Resolved: That the Conference of the China Medical Missionary Association now assembled in Shanghai, expresses its great appreciation of the services Dr. Cousland has so freely rendered to the Publication Committee; and also of the efficient help Mrs. Cousland has rendered by assisting him in his work as Editorial Secretary.

The following invitations to members of the Conference were read:—

From the Shanghai Missionary Association, to attend its Monthly Meeting.

From Dr. F. L. Hawks Pott, President of St John's University, to attend the closing exercises of the winter term of the University.

From President White, to attend the commencement exercises of the Baptist College, Shanghai.

From the International Institute, and the Ladies International Club, to attend a reception at the International Institute.

From the Hon. C. S. and Mrs. Lobingier, to attend a reception at their house.

From Mr. G. S. Foster Kemp, headmaster to attend the closing exercises of the Public School for Chinese.
The China Medical Journal.

The secretaries were instructed to make suitable acknowledgment of these invitations.

An invitation to the Conference to hold its next biennial meeting in the city of Canton, sent by the secretary of the Southern Branch of the C. M. M. A., was read by Dr. Morris. At a later meeting this invitation was unanimously accepted.

The following letter was read from Dr. Howard A. Kelly, of Baltimore, Md., U. S. A., who had been invited by the Executive Committee to attend this Conference:

Dear Dr. Venerable,

What a delightful invitation! I wish I could accept it. I am too deep in my work here, my lecturing and writing, to be able to break away.

Please, however, give my best regards to the medical missionaries assembled, and assure them of my deepest sympathy in their great work. I think, if I had the opportunity to begin life over again, I would go to China as a missionary.

With kindest regards,
Always faithfully yours,

Howard A. Kelly.

Several names were submitted of those desiring membership in the Association, but as their immediate election by the Conference was not in accordance with the provisions of the Constitution, the names were withdrawn on the understanding that their election would be proceeded with in the regular way through the medium of the China Medical Journal. A cordial invitation, however, was extended to those whose names had been submitted to attend the meetings of the Conference, but without voting power.

At 10 a.m. the Conference proceeded to the consideration of the following papers on preventive medicine, a résumé of each paper being given by its author:

4. "A Plea for a Campaign of Public Health Education in China." By E. S. Tyau, M.D., D.P.H.

These papers were discussed by Drs. Beebe, Houghton, Huntley, McAll, Davenport, Maxwell, Osgood, Macklin, Balme, Thacker, Evans, MacWillie, Dilley, A. W. Tucker, Andrew Woods, and Cole.*

Dr. Peter next gave a demonstration, with charts and diagrams, of the work of Public Health Education.

The Conference then adjourned for tiffin.

* Reports of all discussions on papers presented to the Conference will appear in a later issue of the Journal, with the papers to which they are related.
Biennial Conference.

AFTERNOON SESSION, 2 P.M.

Upon re-assembling, there was a brief discussion as to whether the papers should be read in full by their authors, or simply read by title. It was moved and carried that Dr. R. V. Taylor should read the whole of his paper on "Medical Evangelism," which was done. In the absence of the author, the paper by Dr. Sidney Peill on "A Suggestion towards the Effective Following-up of Hospital Enquirers and Believers in a Country District," was read by title.

The following took part in the discussion on the religious aspect of the work of the medical missionary:—Drs. Huntley, Guinness, Gossard, Osgood, Hamilton, Balme, Thacker, Roys, Eubank, Main, Grant, and Mary Stone.

A discussion, which had been looked forward to with great interest, was then opened by Drs. James Maxwell and Samuel Cochran, on "The Choice of an Anaesthetic for the Chinese." The debate was participated in by Drs. Tucker, Cole, Thacker, Venable, Hewitt, Evans, Whyte, Hedblom, and H. B. Taylor.

At 4 p.m. the Conference adjourned for tea, which was kindly supplied by the ladies of the Margaret Williamson Hospital.

At 4.30 p.m. the first of a series of public lectures organized in connection with the work of the Conference, was given by Professor Robertson, his subject being, "Popular Lectures as a Possible Adjunct to Medical Missionary Work in China." The lecture was much appreciated by the large number of members of the Conference who were present.

Wednesday, February 3rd, 1915.

The second day of the Conference opened with devotional exercises led by Dr. Cormack, who gave a very helpful address on the text,—"Fervent in spirit," or, as rendered in the version from which he quoted, "maintain the spiritual glow."

At 9.30 a.m., the president being in the chair, the meeting proceeded to business. The minutes of the preceding meetings were read, and after correction approved.

To harmonize and condense the reports of the Conference, it was moved that the secretaries of the Conference act as a committee to revise all reports of discussions, and to reserve for printing only such matter as, in their judgement, seemed desirable. Carried.

The reports of the treasurer, and of the business manager, were received and referred to the Publication Committee.
It was voted by acclamation that the thanks of the meeting be sent to Mr. Hayward, of the China Inland Mission, for freely and generously auditing the accounts of the business manager. The following resolution, contained in a letter to Dr. Shields from the Board of Managers of the University of Nanking, was presented to the Conference:

Resolved: That we recommend to the China Medical Missionary Association the calling together, during the Biennial Meeting, of a round-table conference of representatives of the different Medical Schools, with a view to seeing if any closer co-ordination of their work is possible.

It was voted that the consideration of this important matter should be deferred until the proposed Council on Medical Education had been formed.

The meeting then proceeded to the consideration of the following surgical papers:

2. "Five Years' Experience in Aseptic Surgery in an Inland Hospital." By O. T. Logan, M.D., Changteh, Hunan.

Those who contributed to the discussion which ensued were Drs. Balme, Maxwell, Cole, Grant, McAll, Huntley, Hedblom, Butchart, Barlow, Main, and Roys.

Dr. Mabel Poulter then read her paper on "Obstetrical Experiences in Futsing City, China." This gave rise to a discussion in which the following took part:—Drs. Whyte, Grant, Kahn, Garner, Phillips, Balme, Maxwell, Hemingway, Thacker, Cole, Davenport, Macklin, Butchart, McCracken, Main, and H. B. Taylor.

This was followed by a paper on "Nursing Requirements in Our Mission Hospitals," by Miss E. Hope Bell of Hankow, which was discussed by Drs. Phillips, Kahn, Balme, MacWillie, McAll, Macklin, and Main.

Dr. Neal next gave a résumé of his paper on "Diet Lists for Use in the Hospital of the Union Medical College, Tsinanfu, Shantung."

At noon, Dr. G. Duncan Whyte presented his paper, accompanied by practical demonstrations, on "The Chemical Investigation of the Alimentary Canal in Chinese." Those who took part in the discussion which followed, were Drs. Morris, Brown, Cole, and Main.

Dr. Morris announced that information had been received that Dr. C. F. Johnson, the vice-president of the Association, had been prevented from attending the Conference by sudden illness. It was voted
that the Conference send him a letter of sympathy, with the expression of the hope of his speedy recovery to full health and strength.

The Conference then adjourned for tiffin.

AFTERNOON SESSION, 2 O'CLOCK.

The first papers considered dealt with the subject of Medical Education. These were:

1. "Hospital Internes: Practical Work by the Senior Classes in Medical Colleges." By Paul J. Todd, M.D., Canton.
2. "The Educational Standards, Pre-Medical and Medical, of Mission Medical Schools." By E. M. Merrins, M.D., Shanghai.
3. "An Example of Co-operation with the Chinese in Medical Education." By F. C. Yen, M.D., Changsha.

The reading of these papers was followed by a debate in which the following took part:—Drs. Kahn, Evans, Roys, Shields, McCracken, Brown, Wu Lien Teh, Gossard, Ven, Neal, Hewett, Eubank, Cochran, Morris and Andrew Woods.

Dr. Morris moved that the Nominating Committee nominate a special committee to bring before the Conference a resolution with regard to the number and location of medical schools which should be endorsed by the Association. Carried.

Prayer was then offered by Dr. Neal, and the meeting adjourned for tea, which had been kindly supplied by the ladies of St. Elizabeth's Hospital, Shanghai.

At 5 o'clock, Dr. Merrins gave a lantern lecture on "Heredity," the second of the series of public lectures, which was well attended by members of the Conference and the general public.

Thursday, February 4th, 1915.

The third day of the Conference was opened at 9 a.m. by the president, who gave a short devotional address on the great danger of loss of spiritual power from self-centredness and lack of unity.

At 9.30 the business of the Conference was resumed. The minutes of the sessions of the preceding day were read and approved. After some discussion as to the methods to be used in the election of officers of the Association, it was moved by Dr. Neal that the election be conducted as in the Peking Conference, viz., after an informal ballot for each officer, the three highest names on each list were to be the nominees to be voted upon in the final ballot. Carried.
The Nominating Committee presented the names of the following members as a committee to deal with the question of the Number and Location of Medical Schools:—Drs. Davenport, Whyte, Wu Lien Teh, Maxwell, Roys, Tooker, and Mr. E. C. Lobenstine of the China Continuation Committee, who by request had kindly consented to serve on this committee. Dr. Maxwell was elected convener. It was voted that the report of this committee be made the first order of business on Friday morning. [For the report of this committee, see p. 105.]

Dr. Whyte moved that the Nominating Committee nominate a Committee on Resolutions to deal with such matters as may be referred to it by the Conference. Carried.

Dr. Whyte next moved that the Committee on Resolutions prepare a resolution deploring the inadequate time allowed to doctors for acquiring a thorough knowledge of the Chinese language. This resolution, when approved by the Conference, to be sent to all Mission Boards. Carried.

Dr. Beebe, chairman of the committee which had been appointed to deal with it, then presented the following report:

REPORT OF PUBLICATION AND TERMINOLOGY COMMITTEE.

Your committee has been at work steadily during the past two years and some new editions and some new books have been printed. More work would have been done if it had not been that several, who had hoped to have helped, found themselves unable to do so, and if it had been possible for the editorial secretary to be in the East.

It is now some years since Dr. Cousland was obliged by ill-health to return home and in the meantime he has had very many months of ill-health, but in spite of weakness, distance, and lack of Chinese writers, he stuck to the work, revising some big books and preparing some new ones to complete the Chinese Medical Library.

Later he found himself in so much better health that he has been able to return to the East and help the cause on the spot. A year ago Dr. Cousland sent in his resignation to the committee, which we did not feel it was in our power to accept. We are glad to think that in view of his largely restored health he may be in a position to continue to act as Editorial Secretary, and we earnestly hope that he will be able to steer the publication barque for a long time to come.

The committee met in January 1913, again in January 1914 at Tengchow and Peking for ten days. Several sectional meetings were held in the summer of 1914, and the present conference takes place in the middle of another meeting, lasting a month.

At these meetings the chief work has been the making provision for new books, revision and re-issue of books getting out of print, and the emendation and completion of the Medical Lexicon. A statement of the books is given in detail below, but special mention may here be made of the Lexicon.

The edition published in 1908 contains some 13,500 terms, and the new one will have nearly 20,000. It will give the chief Japanese terms alongside for comparison, and eliminate not a few made characters which have not proved acceptable.
Biennial Conference.

**Books Published in 1913 and 1914:**
- Giffin's Medical Jurisprudence:
- Younger's Insanity in Everyday Practice:
- Bruce and Dilling's Materia Medica, Vol. I:
- Thorington's Refraction:
- Gray's Anatomy, second edition:
- Archinard's Bacteriology, second edition:
- Luff's Chemistry, third edition:
- Penrose's Diseases of Women, second edition:
- Halliburton's Physiology, sixth edition:
- Hare's Therapeutics, reprint.

**Books in Press:**
- Macdonald's First Aid:
- Bruce and Dilling's Materia Medica, Vol. II:
- Stengel's Pathology, Vol. II:
- Robb's Nursing, second edition:
- Holt's Diseases of Children:
- Fullerton's Nursing in Abdominal Surgery, second edition:
- Waring's Operative Surgery:
- Hutchison and Rainy's Clinical Methods:
- Kerr's Practice of Medicine, second edition.

**Books in Preparation:**
- Public Health:
- Toxicology:
- English-Chinese Medical Lexicon, second edition:
- Chinese-English Explanatory Lexicon:
- Landois and Sterling's Physiology:
- Pharmacopoeia.

**Summary of Financial Statement:**
At the end of 1914, the balance in Bank and Presbyterian Press amounted to $10,024, on deposit receipt $7,643, and Wellcome fund deposit receipt $3,166, making a total of cash on hand of $20,833. The books in stock are insured for $20,000. The detailed auditor's account is in process of preparation.

**Need of Translators:**
In consideration of the pressing necessity of largely increasing the output of new books and of keeping our old editions revised and up-to-date, we would earnestly appeal to the Association to urge the appointment of one of our members, who, in connection with our editorial secretary, shall devote his whole time to the work of the Publication Committee, making his headquarters in Shanghai. In addition we would urge the setting aside of one man in each of the medical schools, who shall devote half his time to the preparation of medical books in Chinese, in consultation with, and under the direction of, the Editorial Secretary.

If the work that has been done by the Publication Committee during the past thirteen or fourteen years is to be made effective it will only be by publishing a series of medical text-books, together with a journal in Chinese, that will enable our students to keep abreast with the times, and for this our present force of translators is utterly inadequate.

The criticism has often been made that, owing to the scarcity of books in Chinese and the poverty of the language, it is impracticable to train medical students through the medium of Chinese to a sufficiently high standard, but the committee is confident from its own experience that the language is capable of expressing the meaning of any medical idea and that with an adequate force of translators, such as is contemplated in the above recommendations, a continual
supply of medical books in Chinese of the highest standard can be furnished to students and physicians and the list of terms can be kept up to date.

1. Lack of Helpful Criticisms:

Your committee would call the attention of the Association to the fact that practically no criticisms of either the medical terms in Chinese, nor of our books, are received, so that it is impossible to know how to improve matters, except so far as the members of the committee themselves suggest changes.

We would urge that those who use the books would note errors, inaccuracies, and obscure passages, and report the same to the Editorial Secretary, together with criticisms of the terms used in Chinese.

On behalf of the Committee,

P. L. McAll., Chairman.

In connection with this report, Dr. Beebe, on behalf of his committee, presented the following recommendations which were adopted by the meeting:

This committee reports that it endorses the recommendations of the Publication Committee to the following effect:

1. That at least one of our members be appointed, who, in connection with our editorial secretary, shall devote his whole time to the work of the Publication Committee, making his headquarters in Shanghai.

2. We would recommend that, if a man be secured to give full time to the work of the Publication Committee, he be made editor-in-chief and business manager of the Chinese Medical Journal, providing that if such an officer be not obtained, the Chinese Journal shall be managed as in the past, by the South China Branch of the C. M. M. A., but be officially recognized as the Chinese Journal of the whole Association and be supported by all of its members.

3. We would urge the men in connection with the various medical schools and hospitals to translate medical books into Chinese, this work to be done in consultation with the editorial secretary.

4. (a) In view of the importance of a uniform medical nomenclature in Chinese which may be universally adopted by all medical colleges in China, this Conference desires to express its desire to work in cooperation with the Chinese Government, and that this resolution be officially transmitted to the Board of Education in Peking.

(b) We recommend that the Board of Education be requested to appoint a number of Chinese representatives, preferably four, to act with an equal number from the Publication and Terminology Committee, in the final revision of medical terms.

(c) We recommend that this request be accompanied by a copy of each of our publications.

5. In view of the very great importance of getting suitable text books in Chinese and medical literature for the advancement of medical education in China, we urge that immediate effort be made by the Association to secure funds for the following purposes:

Salaries for two men giving full time to literary work, and for travel, children's allowance, house rent, etc., $2,500 each

Running expenses of Central Bureau, rent, pundits, etc., $1,700.

Half Salaries of four foreigners, $1,000 each

Full Salaries of two English-speaking Chinese, $1,200 each

(6) We recommend the adoption of the treasurer's report, and would suggest that in the future a statement of assets and liabilities be included.
Biennial Conference.

Dr. Beebe, on behalf of his committee, then presented the treasurer's report with the above recommendation. Report and recommendation were adopted. (See page 121 for Report.)

At 10 a.m. the Conference proceeded to the consideration of tuberculous disease and its treatment, as presented in the following papers:


The following took part in the discussion of these papers, Drs. S. Cochran, Thacker, Lee, Kahn, Cole, Hume, Maxwell, Seymour, Balme, Russell, Roys, Macklin, and Main.

A paper entitled, "A Study of One Hundred and Eighty Consecutive Hearts in Chinese Students," was then read by Dr. E. H. Hume, and discussed by Drs. Whyte, Woods, Maxwell, Davenport, and Main.

The paper by J. Preston Maxwell, M.D., on "Beriberi in the Province of Fukien," was read by title. Comments were made by Drs. James Maxwell, Cole, Main, and Andrew Woods.

Dr. Houghton next presented the following report:

REPORT OF TEMPORARY COMMITTEE ON THE PUBLIC HEALTH PROGRAMME OF THE C. M. M. A.

Evidence has come from all parts of China that there is an awakening public conscience on the subject of public health. Where medical missionary work has been established the people have begun to appeal for our aid and co-operation in this matter.

This task is so great that we see no way of meeting it except by the organization and unification of available forces. We commend to this Conference for sympathy and endorsement the plans of the Y. M. C. A. for promoting of public health education among young men in cities where their branch associations have been organized.

We recommend:

I. That this Conference create a permanent Council on Public Health whose functions shall be:

1. To correlate and extend activities now in operation.
2. To initiate new lines of work.
3. To outline practical methods for the guidance of those starting such work in local centers.

II. That this Council on Public Health be given representation on the Executive Committee of the C. M. M. A., in order that—(a) The Executive Committee may the better correlate the activities of this Council with the other activities of the Association, and

(b) The needs of this Council may be adequately presented to the members of the C. M. M. A.
III. That the Executive Secretary of the C. M. M. A., be an *ex-officio* member of this Council in order that he may act, as far as possible, as a medium between this Council and the members of the C. M. M. A.

IV. That as thoughtful minds in both the C. M. M. A. and the Y. M. C. A. have long been considering the wisdom of a national health propaganda in China, we recommend that steps be taken to work out a scheme whereby the two organizations may co-operate in such a propaganda, but to leave the details of co-operation to be arranged between this Council on Public Health and the Secretary of the C. M. M. A., and the National Committee of the Y. M. C. A.

V. We recommend the following program:—

1. Lantern slide exchange, literature approved by the Publication Committee of the C. M. M. A., exhibits, lectures with demonstrations, the press, and publicity.

2. That association be sought with existing governmental and other bodies for the promotion of instruction and the practice of hygiene, and for the fostering of movements already initiated, or being initiated by local forces, by the placing of the services of the C. M. M. A. and the Council at their disposal.

VI. In order to finance this program we recommend:—

1. That the Executive Committee set aside a portion of the funds now in hand.

2. That a portion of the funds now in hand for publication purposes shall be used for the preparation of health literature.

3. That the Executive Committee take steps to secure additional funds for this important work.

This Report of the Temporary Committee on the Public Health Programme of the C. M. M. A., was adopted.

Dr. Hume moved that the Nominating Committee nominate a permanent Council on Public Health to consist of six members and the Executive Secretary of the Association. Carried. The meeting then adjourned.

In the afternoon no session of the Conference was held, the time being devoted by members to visiting the various hospitals of Shanghai.

At the General Hospital Dr. N. Macleod gave a series of X-ray demonstrations of unusual interest, which were much appreciated by the large number of members who were present.

At St. Luke's Hospital operations were performed, and there was a demonstration of the method of vaporizing ether used as an anaesthetic.

At the Shantung Road Hospital, several very interesting cases were shown. Cases were also shown at the Margaret Williamson Hospital, and at St. Elizabeth's Hospital.

At the Harvard Medical School, visitors were shown over the school buildings and the Red Cross Hospital, and Dr. Hedblom gave fluoroscopic demonstrations.
Friday, February 5th, 1915.

The fourth day of the Conference commenced with a devotional service which was led by Dr. Park, his subject being "Christ's Commission to the Seventy Disciples." He emphasized the point that miracles of healing, such as those performed by the seventy, are beyond our power, but they are of minor importance compared with the power which comes from the humble but joyous assurance of our own spiritual standing.

The minutes of Thursday's session were read and approved.

The Nominating Committee presented the following names:—
For the Committee on Resolutions:—Drs. Cole, Beebe, and Woods.
For the Permanent Council on Public Health:—Drs. Houghton, Peter, Yen, Tooker, Kahn, and Smyly. This committee to elect its own chairman.

The formation of all these committees, as suggested, was approved.

Dr. Cormack, on behalf of the committee appointed to deal with the report of the Terminology and Publication Committee, then presented to the Conference the following resolution:

Your committee has considered the matter of reducing the number of the Terminology Committee, but find this can only be done with considerable impairment of its usefulness. We beg therefore to submit to the Conference the following resolution:

That the Terminology and Publication Committee consist of those now nominated by the Nomination Committee, and that for purpose of co-operation with the Chinese authorities, four of those members should be appointed to represent the Association in any joint work. The selection of these four members to be left to the Terminology Committee.

This resolution was adopted.

Dr. Hume moved that the Nominating Committee propose to the Conference the name of an executive secretary. Carried.

Dr. Houghton then presented the Report of the Research Committee which was adopted. (For the report in full see p. 123.)

On motion of Dr. McAll, the Committee on Resolutions was requested to bring before the Conference a resolution on the necessity of establishing an institute for medical research in China.

Dr. Maxwell, on behalf of the Committee appointed to consider the question of the Number and Location of Medical Schools, then presented the following report:

1. That, in regard to the question of the location of Medical Schools, the immediate needs of Chinese students should be considered with special regard to the following geographical areas, viz., North, East, Central, West and South,—and that the ideal arrangement would be one school teaching English, and one in Chinese, in each of these areas.
The China Medical Journal.

The North. That Peking, as the most important of the northern centres, should have a medical school in which the teaching is conducted through the medium of English. Students desiring teaching through the medium of Chinese should join the schools in Mukden or Tsinanfu.

The East. That, in the judgement of the Association, one medical college teaching in English should be sufficient for this area. We would therefore recommend that the medical colleges which are at present using the English language, or are contemplating doing so, should, if possible, unite in forming one strong union institution. That in case a college using the Mandarin is needed in this area, we would recommend that Nanking should be the centre; but that careful consideration should be given to the question whether these needs could not be adequately supplied by the institutions at Tsinanfu and Hankow.

The Centre. That the Changsha school be recognized as the English teaching school, and the Hankow school as the Chinese teaching school, in this area.

The West. That the Chengtu school be recognized as the centre for this area, and that the best medium for teaching be decided by local conditions.

The South. That Canton be regarded as the natural centre for the development of a high grade medical college, which should serve the southern provinces. In determining the language to be used, due consideration should be given to the existence of the Medical College of the University of Hongkong, and to whether it may not meet the needs of those students who desire a medical education in English.

2. That the Association would earnestly deprecate the commencement of other medical schools until those named above are adequately staffed.

3. That the Association recognize that women's medical schools are already established at Peking, Soochow, and Canton, and urges that they should be affiliated for examination purposes, at least, with the neighboring men's colleges. Further, that no more women's medical schools be opened until it be seen how far the existing institutions fail to meet the need. When more such schools are required, it is very important that they should be developed alongside of the existing organized medical colleges for men.

4. (a) That the Association, through its President, inform the Continuation Committee of its findings, and desire it to use its influence in the directions indicated here.

(b) That representations to the same effect be made to the Home and local Boards, and to the local committees of the various medical schools.

(c) That the Association arrange, as soon as possible, and until such time as the Chinese Government undertakes this work, one Examination Board, which shall arrange exit examinations for all the schools recognized by the Association, and shall grant certificates to all successful candidates. This shall in no way affect the rights of the various medical schools to give, in addition, their own certificates or degrees to their students.

5. That, in view of the large number of assistants required in our hospitals, and of medical practitioners in the smaller cities, the Association should consider whether, for the present, it would not be advisable to establish two standards of examination, and give certificates accordingly.

The reading of this report led to a long discussion which resulted in a motion that the report of the Curriculum Committee be considered before proceeding further. Dr. Balme thereupon presented the report of the Curriculum Committee which, after amendment, was adopted:
CURRICULUM COMMITTEE REPORT.

The Curriculum Committee reports that it has held four meetings during the session of the Conference. Upon this Committee almost all of the Medical Schools of the Association have been represented. Its members have taken into careful consideration the advisability of recognizing more than one graded school, the educational standards to be required, the curriculum to be followed, and the conditions that should be fulfilled before graduation.

They note with great satisfaction the large measure of uniformity which already exists in the requirements of the various medical schools, and the still greater uniformity in the ideals toward which each is striving, and would urge upon members of the Association and upon missionary educationists, throughout the country, the great need of their cooperation in this matter if a high standard of medical education is to be attained.

This Committee would also urge upon all such medical schools as receive the endorsement of the Association, the paramount importance of bringing their standards into line with one another at as early a date as possible, so as to ensure complete uniformity where it does not at present exist.

To this end this Committee presents the following recommendations:

1. Council on Medical Education. That the C. M. M. A. create a permanent Council on Medical Education. That this Council be composed of four physicians connected with medical schools, two physicians not so connected, and the Executive Secretary of the C. M. M. A., with power to add to their number. That the duties of this Council shall be:

   (a) To outline acceptable standards for medical schools.

   (b) To act as a central body of reference in matters concerning the adequate occupation of the field.

   (c) To keep in touch with all medical schools through the Executive Secretary of the C. M. M. A.

   (d) To keep in close touch with the Board of Education and other national and provincial educational organizations.

That this Council be given representation on the Executive Committee of the C. M. M. A.

2. Medical Schools Approved by the C. M. M. A. That Medical Schools to be approved by the C. M. M. A. shall meet the following general requirements:

   (1) Course of Instruction. That the course of instruction shall extend over a period of five years of, at least, 32 weeks each.

   That the text books used and the instruction given shall be equivalent to that in European and American schools.

   That human dissection, and complete courses in laboratory work, shall be included in the curriculum.

   (2) Entrance Requirements. That the standard of admission shall be graduation from a Middle School as defined by the Educational Association of China, and, in addition, at least one year of preliminary work including laboratory courses in physics, chemistry and biology; this preliminary or "pre-medical" year being arranged to supplement the preparatory instruction already given in Middle Schools.

   (3) Hospital Year. That before receiving a medical degree, students who have completed the five years of regular instruction, shall spend one year as intern in an approved hospital, or in some other line of special medical work, at the conclusion of which the applicant for a degree shall present a thesis acceptable to the faculty of the medical school.
The China Medical Journal.

(4) Degrees. That only students who have met the entrance requirements, have completed the regular course of instruction in an approved school, and at the termination of the hospital year have presented an acceptable thesis shall be entitled to receive a medical degree.

(5) Staff. That the minimum staff shall be ten men on the field giving full teaching time. To provide for furloughs, language study, etc., this requirement means a staff of at least fifteen fully qualified teachers either foreign or Chinese.

(6) Equipment. The school must be adequately equipped with modern appliances for instruction, properly equipped laboratories in Chemistry, Pathology, Bacteriology, Anatomy, and Clinical Microscopy, and must be maintained on an efficient basis. The scientific instruments and apparatus shall be sufficient to permit students to do individual work.

(7) Hospital Facilities. In connection with each medical school and under control of the faculty, there shall be one or more hospitals suitable for teaching purposes, each hospital to have at least 100 beds. One or more daily dispensaries should be connected with the college hospital.

(8) Curriculum. The schools approved by the C. M. M. A. shall meet the curriculum requirements which the Council on medical education will prepare in detail upon the lines already suggested.

(9) That all medical schools conforming to the above standards shall be classed as "Approved Schools," and shall be designated as "Class A."

3. Recognition of Other Schools. Medical schools not able to meet the requirements of the "Approved Schools" may be recognized by the Association and designated as "Class B" on condition they conform to the following requirements, viz., to admit only graduates from Middle Schools or those who have passed an equivalent examination, and to give a course extending over a period of five years, and to follow the curriculum to be arranged by the Council on Medical Education. Certificates of Graduation, but not degrees, shall be given by schools of "Class B" at the conclusion of the course.

Respectfully submitted:
J. C. McCracken, Shanghai
E. H. Hume, Changsha
A. H. Woods, Canton
P. J. Todd, Canton
J. E. Gossard, Foochow
F. E. Dillery, Peking
H. Balme, Chairman, Tsinanfu
N. W. Brown, Secretary, Nanking.

By invitation:
H. S. Houghton, Shanghai.

By request of Association:
J. G. Cormack, Peking
P. S. McCall Hankow.

After the formal adoption of this report, the meeting adjourned for tiffin.

Afternoon Session.

In the afternoon, the session opened with the reading of a paper on "Tropical Febrile Splenomegaly and its Surgical Treatment," by James L. Maxwell, M.D., Tainan, Formosa. Drs. Whyte, Houghton, Cochran, Cormack, and Cole took part in the discussion which followed.
In the absence of the author, the paper on "Sandflies (Phlebotomus) in China, and Their Relation to Disease," by Richard Arthur Bolt, M.D., Peking, Physician to Tsing Hua College, was read by title. The time of the Conference was now so limited that it was unable to discuss the subject in full, but the secretaries were directed to record its appreciation of the great value of the paper, and of the work done in compiling it.

The Conference was also unable to deal fully with the paper on "Appendicitis," by Dr. Russell of Soochow, which was taken as read.

On motion, the report of the Committee on the Location and Number of Medical Schools, the principal subject of discussion in the morning, was laid on the table.

Dr. Maxwell then moved that questions arising in connection with the location of Medical Schools, and the language used therein as a medium for teaching, should be referred to the Council on Medical Education, with a view to the consideration of the problem of co-ordination of the same of existing schools, and the prevention of further schools being established at other than selected centres. Carried.

The Publication and Terminology Committee drew the attention of the Conference to the slow progress it was making in the work of translation, because of the difficulty of finding new translators, and the pressure of other duties on existing members. Dr. Shields thereupon presented the following resolutions, which were unanimously adopted:

Resolved, that we request the American Presbyterian Board to allow Dr. Mary Fulton to give her full time to the work of the Publication Committee.

Resolved, that we recommend that the members of the Publication Committee be allowed by their representative Boards or institutions to give one half of their time to the work of the Committee.

Dr. Cormack moved that Dr. Cousland be appointed Editorial Secretary, and Dr. McAll assistant Editorial Secretary, and that as soon as possible Dr. McAll be set apart to give his entire time to this work. Carried.

The Nominating Committee nominated the following as members of the Research Committee:—Drs. Whyte, Bolt, Tyau, Eggers, and Houghton. Elected.

The following were nominated as members of the Publication and Terminology Committee:—Drs. McAll, Cousland, Neal, Shields, Cormack, Ingram, Gillison, and Fulton. Elected.

The following were nominated as members of the Council on Medical Education:—Drs. Cochran, Cormack, Shields, Hume, Andrew Woods, and Davenport. Elected.

Dr. Neal was nominated as Executive Secretary, but stated that until some one could be found to take over his other work, he was
unable to accept the appointment. Dr. Hume then moved that the appointment of an Executive Secretary be referred to the new Executive Committee with full power to act. Carried.

As the appointment of an Executive Secretary necessitated one or two changes in the Constitution, on motion, duly made and seconded, and passed by a unanimous vote, the Executive Secretary was made an officer of the Association, and power was given to the Executive Committee to amend the Constitution in accordance with this appointment.

Dr. Beebe, the Chairman of the Resolutions Committee, then presented the following resolutions, all of which were adopted.

1. *Resolved*; That we emphasize the importance of establishing in China a Research Institute, and that measures be taken through the Executive Committee of the Association to bring this need to the attention of those most likely to be interested in such an enterprise.

2. *Resolved*; That the Conference desires to convey to its hostesses and hosts its sincere thanks for the warm hospitality provided, and the sympathy shown towards its work.

3. *Resolved*; That the Conference wishes to express its deep obligation to the Shanghai Y. M. C. A. authorities, and in particular to Mr. Lockwood, for the unremitting care and attention shown for its comfort.

4. *Resolved*; That this Association learns with great pleasure of the formation of a "Chinese National Medical Association," and extends to it the assurance of its warm sympathy and co-operation.

5. *Resolved*; That this Association, met in conference in Shanghai, desires to place on record its appreciation of the intelligent and sympathetic attitude towards medical missionary work in China, of the editors of the *North China Daily News*, the *China Press*, and other Shanghai papers.

6. It was also voted by acclamation that a telegram of greeting be sent from the Conference to H. E. Yuan Shih Kai, President of the Chinese Republic, with its wishes for the peace and prosperity of the country during the coming year.

The meeting then elected the following officers for the next biennium:

- W. H. Venable, M.D., of Kashing, President.
- James L. Maxwell, M.D. (Lond.), of Tainan, Vice-President.
- H. H. Morris, M.D., of Shanghai, Secretary and Treasurer.
- E. M. Merrins, M.D., of Shanghai, Associate Editor.

As members of the Executive Committee:

- P. S. Evans, Jr., M.D., of Nanking.
- R. C. Beebe, M.D., of Nanking.
- E. M. Merrins, M.D., of Shanghai.
- C. J. Davenport, F.R.C.S., of Shanghai, representing the Council on Medical Education.

............... Executive Secretary.
Biennial Conference.

Dr. Venable made a graceful acknowledgment of his election as President. Votes of thanks were passed to the retiring officers.

The Conference then ended with prayer and thanksgiving by Dr. Cormack. The ladies of the Harvard Medical School and of the Shanghai Red Cross Association then kindly provided refreshments for the delegates.

At 4:30 p.m., Dr. Wu Lien Teh gave the third of the series of public lectures, his subject being the "Manchurian Epidemic of Pneumonic Plague." The lecture was most interesting, and there was a large attendance.

A number of photographs of the Exhibits, including many of the Preventive Medicine models and diagrams, were taken by the Burr Photo. Co. of Shanghai; this firm also took the official photograph of the Conference delegates.

COMMERCIAL EXHIBITS AT THE C. M. M. A. CONFERENCE.

Among the chief features of the Conference were the commercial exhibits. The firms making exhibits went to a great deal of trouble and expense to make their exhibits attractive. Most of these advertise in our Journal.

Edward Evans and Sons had on exhibit a complete line of Medical Publications and the doctors took great advantage of this to select and order books. They also exhibited a good line of Bauch and Lomb's microscopes and lanterns.

Messrs. Voelkel and Schroeder, and Parke Davis & Co., (represented by Mr. Robbins) combined their exhibits and made a most attractive display of their articles. Voelkel and Schroeder had on exhibit practically everything needed for hospitals.

Werner Rudenberg & Co., had on exhibit their Radium Water Preparation as well as instruments used in connection with Radium treatment. Mr. Herzfeld, their representative, made a test for Radium in the presence of a good number of doctors.

The American Trading Co., exhibited for the American Sterilizer Co., a very beautiful sterilizing plant suitable for any hospital. They also exhibited Scott's Emulsion.

Mr. George Matheson made a most attractive exhibit for Harkness Beaumont & Co., of Lactomakine, etc. This exhibit was decorated with Scottish emblems and showed the experienced hand of Mrs. Matheson.

The Society of Chemical Industry in Basle had an attractive exhibit of their preparations under the directions of Mr. Malade.

Burroughs Wellcome & Co., had their usual preparations arranged in a very attractive manner and succeeded in holding up the high reputation of this well known house.

The exhibit of the Commercial Press was a revelation to all. They exhibited all kinds of Anatomical Models made in Shanghai. The quality of these models is excellent.

Walter Scharff & Co., exhibited disinfectants for use in hospitals and private homes. They are the agents for the West Disinfectant Co., who are manufacturers of a high grade disinfectant. This exhibit was of practical value to everybody practising in China.

Mustard & Co., agents for the Royal Typewriter Co., exhibited their special machine for doctors and also their latest portable machine.

On the whole the commercial exhibits at the Conference were of distinct value, and it was only to be regretted that there were other concerns who desired to make exhibits but on account of the war were prevented.


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<td>Selmon, A. C.</td>
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<td>Selmon, B. L.</td>
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<td>Seymour, W. F.</td>
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<td>Taylor, H. B.</td>
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<td>Anhwei</td>
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<td>Yen, F. C.</td>
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<tr>
<td>Young, E. McK.</td>
<td>Kiangsu</td>
<td>Anhwei</td>
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Secretary's Report.

On reading over the reports presented by the secretaries at the last two meetings of this Association as suitable models to follow, although the two reports differ very much in their contents and length, I was struck by the fact that they both emphasized the need of the Association for the full services of one man, both for secretarial and editorial work. To-day I offer myself as a third witness to this need. Ever since your last meeting two years ago, your Executive has been making strong efforts to secure one man's entire time for this important work. Their efforts increased the more they saw of the work (or lack of work) which the present incumbent was doing. And I sincerely hope that before this conference closes some decisive action will be taken by you, and that the right man will be found and his services obtained.

The need of a man to do organizing and unifying work is a tremendous one. He should be prepared to go from station to station, to give light on difficult problems, to help organize campaigns on public health questions, and to bring the far-scattered solitary workers in touch with what the other members of the Association are doing and how others have solved the same difficulties with which they are contending. I see no reason, if we get such a man, why the offices of secretary, treasurer, editor, and business manager of the Journal should not be combined in one.

Our very able editor, Dr. Hutcheson, has, unfortunately, been compelled to leave for home, like so many good men before him, on account of what?—his health. Is it right to go on asking men whose time is already well filled to take on more work? As well as he has edited the Journal in the two years just past, if he were here to-day, I am sure he would tell you that it could be done much more satisfactorily if one had more time to give to it. Two years ago, when the editor went home on furlough, your Executive was at somewhat of a loss to know what to do for an editor. Fortunately his colleague knew his value and he was offered to the Executive, and you have enjoyed the results since then.

One of the other important steps taken was the appointment of Dr. Snell as business manager for the Journal. It was felt that it was much more desirable to have a member of the Association to hold this position rather than leave it in the hands of a company. Accord-
ingly, Dr. Snell was appointed and took over the work in July of last year with the results which will be learned from his report. You can judge for yourselves whether it has paid or not.

Your Executive has met nine times since the last Conference. The important features of these meetings have been set before you in the Journal. Among some of them have been the change made in the administration of the Wellcome Trust Deed, the decision to leave the Co-operative Book Agency in the hands of Ed. Evans & Sons, and the co-operation offered by the China Continuation Committee in regard to raising the budget necessary for the work of the general secretary of the Medical Association.

At the request of the Executive your president visited Nanking, Tsinafu, Peking, and Hankow, in order to get in touch with the medical educational work being done in those centres, with the hope that the situation might be clarified and some definite plan be fixed on by the Association. His account of his trip has appeared in the Journal.

A new list of members was gotten out a year ago. It included all the new members up to date, and as many changes as could be ascertained. There were, however, many other changes, deaths, etc., which had never been reported in past years, and it is hoped to get out a new and more exact list after this Conference. An accurate one can be made out only with the help of every member, who should report any error in the old list, or any change of address which should be made. The secretary can hardly be expected to know when some member is transferred from one station to another unless he is notified of the change.

Since the last Conference, two years ago, 67 new members have been added, but of these two have died and one has returned home. In addition, several other members have been taken from their work by death, while some have left China permanently, so that now the total active membership is somewhat over five hundred. The following have been taken by the one Whose service they were doing:—Dr. C. F. Robertson, Dr. S. Jenkins, Dr. E. H. Hart, Dr. J. N. Case, Dr. F. J. Hall, Dr. N. M. Latimer, Dr. S. H. Carr, Dr. H. V. Wenham, Dr. A. F. H. Zeiss. Of these, five have been carried off by typhus fever. Truly the losses are great. "God moves in a mysterious way."

In closing, I would again call your attention to the need of one man's full time to be given to the Association. If such a one were obtained the Co-operative Book Agency, in addition to the few other little jobs we mentioned above, could be taken over by him, and we
would at least save the 10% commission on the postage of the books we get, which we pay at present.

I sincerely hope that the right man will be found.

Faithfully yours,

H. H. Morris.


It is the keenest disappointment imaginable to the editor that he is not able to be present in person at the Conference of 1915 which promises to be the best in the history of the Association.

The mantle which fell from Elijah in 1913 onto our shoulders has been worn with the greatest interest and pleasure. The work has been a stimulus and a passion with the editor from the very first, and now, after two years in which many hours have been spent in the editorial work, we pass it on to other shoulders regretting only that we did not do more to improve the Journal during our term of service.

We have found the sympathy and interest of the members of the C. M. M. A. all to be desired, and the cooperation of the medical body as a whole, while it could and should be more general and active, yet has been good and encouraging. It should be said, however, that certainly there are many men in our midst doing excellent work and making careful observations who could and should contribute more largely to the pages of the Journal, and there are many others who would find their own work to improve greatly in quality if they started to keep better and more careful records with a view to reporting to the Journal, from time to time. With the vast wealth of clinical material and the unsettled questions of the distribution of diseases in China that await the careful observer, the Journal should have a larger body of contributors than it now enjoys, and we believe it will in the near future.

We shall not discuss the question which has recurred at almost every Conference for many years past, as to whether it is advisable to issue our Journal every month instead of every two months, but we will call attention to the able discussion of this question by one of our former editors, Dr. Jeffreys, in his report to the Conference of 1910. We agree in substance with his arguments and with his attitude on the question. To issue our Journal each month is perfectly possible, but as Dr. Jeffreys pointed out, it will take more cooperation from the men of China in the matter of contributed articles, unless we reduce each issue of our Journal to such a size that it would present neither an imposing nor an attractive looking
journal among its contemporaries. A still more important objection, however, is that it would increase the work of the editorial staff to such an extent that it is doubtful whether any voluntary editor, with the ordinary duties of his own medical work, could give the time necessary for such a monthly issue. An editor devoting the whole, or the major part, of his time to the JOURNAL would, of course, remove this latter difficulty.

In the beginning of 1913, we found that the editors of the various departments of the JOURNAL had, with few exceptions, either resigned on account of pressure of work, or had gone home on furlough, the result being that the section of the JOURNAL on medical and surgical progress had practically no regular contributors to its pages. These departments have been reorganized and added to until the JOURNAL now has a body of men actively interested in and regularly contributing to it in that most important department, the section on medical and surgical progress. The importance of these departments can not be overestimated and they have still greater potentialities for usefulness yet undeveloped. It is essential that the editors of these various departments be supplied with good literature for review and in some cases where it is impossible to obtain exchanges with magazines devoted to special branches of medicine, such as the eye, skin, etc., it would seem permissible and advisable to secure such journal by subscription. The nature of our work in China forces each man to treat diseases in all the branches of medicine and since obviously no one man has the literature or the time to keep up with modern progress in all these branches, it is especially important in China that we shall have real live departmental editors to do this for us, and it is essential that these editors be supplied with good journals for review.

One of the greatest steps in advance during the past year has been the securing of the services of a business manager. This has not only been of advantage to the JOURNAL in the matter of finances, but it has taken off many duties which were presumably on the shoulders of the editor, but which through inability of the editor to find time to perform, simply lay like a load on his conscience, without any corresponding benefit to the JOURNAL.

The finances of the JOURNAL will be dealt with by the business manager, but we wish to state that they are in a very satisfactory condition. It will be noticed that a change has been made in the printing of the index to each number of the JOURNAL, it being now printed on the front cover. This will, we feel sure, commend itself to everyone.

We recommend that all papers, reports, etc., from the meetings of the various Branches of the Association be sent to the editor of the
We are confident that many good papers never reach the Journal because of the undue modesty of the writer.

Let the editor be the clearing house, and let him have the privilege of seeing the material from these Branch Association Meetings and of printing or rejecting what he thinks best. The more material that comes into his hands, the more he has to choose from and the better the tone of the Journal. We reiterate, let it be understood that the secretary of the Branch Association send in all papers to the editor.

As to the matter of statistics of the hospitals and dispensaries in China, since in many places of work the hospital statistics are kept in a very desultory way, and since there is a lack of uniformity in the matter of classification of these statistics, we recommend that this conference express itself as urging the keeping of more careful records of work at all points; the adoption of a uniform classification of hospital facts and figures, and the yearly reporting of the same to the secretary of the Association or to the editor of the Journal.

As to the editor, we think it advisable that he be a man in or near Shanghai, for many reasons; for nearness to the printing press expedites the interchange of manuscript and proof; closer contact with many movements which originate and have their headquarters in Shanghai; opportunity of getting manuscripts, notices, etc., into the Journal at a later date than an editor some distance from Shanghai;—these and other similar advantages make it, in our opinion, better to have the editor in fairly close proximity to Shanghai, if possible.

To sum up, therefore, we recommend:

To the Conference, the appointment of an editor for the Journal living in or near Shanghai.

To the members of the C. M. M. A. at large, more active support of the Journal in general, and recommend specifically that all branch papers, etc., be sent directly to the editor.

To the editorial staff, that the departmental editors be supplied with good literature and that they develop this phase of the Journal to its fullest possible extent.

Finally, we invite and recommend you to give your support to our successor in even more hearty measure than you have given it to us. The Journal belongs to the C. M. M. A., to each and every one of us, and let us make it worthy of the medical men of China and Korea.

Respectfully submitted,

Allen C. Hutcheson.

Kashing, January 20th, 1915.

I beg to submit the following report with reference to the status of the China Medical Journal:

1. ACCOUNTS.

When I took the accounts over from the Presbyterian Mission Press there was quite a large amount overdue for subscriptions and advertisements. The most of these old accounts have been cleared up and it is hoped that they can be kept cleared to a minimum in the future.

2. SUBSCRIPTION LIST.

We found quite a number of names on the subscription list who should not be receiving the Journal. Among these were several advertisers whose advertisements had been discontinued for a year or two. There were exchanges who were no longer exchanging. We now know where each subscription stands.

The number of subscriptions is as follows:

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<tr>
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<tbody>
<tr>
<td>In the Far East</td>
<td></td>
<td></td>
<td>469</td>
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<tr>
<td>Foreign</td>
<td></td>
<td></td>
<td>79</td>
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<tr>
<td>Exchanges</td>
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<td></td>
<td>27</td>
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<tr>
<td>Free</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Advertisements</td>
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<td>48</td>
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<tr>
<td><strong>Total</strong></td>
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<td></td>
<td>628</td>
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</table>

In spite of a large number of delinquents dropped, this is an increase of 113 over what it was when I took charge. We are now printing 700 copies. We found there were a number who were members of the China Medical Missionary Association but were not receiving the Journal, and also there were quite a number who have never joined the Association simply because of neglect. We are getting all of these in line. I have made a special campaign among the English-speaking Chinese doctors and have been quite successful. The Journal has never been brought to their attention. I appreciate very much the response the members made to my recent circular letter. It is the desire of the management to have all members pay their subscriptions directly instead of through any local booksellers or publishing houses.

3. ADVERTISEMENTS.

I have been very much encouraged along this line and have found advertisements comparatively easy to secure. In the first place the advertising rates were revised and increased slightly to
which all of the old advertisers have agreed to renewed contracts. There has been a loss of one half page of advertising and one page has been temporarily discontinued on account of the war. On the other hand nine and a half new pages have been added and several more are expected for the next issue. There has been quite a number of concerns, especially in England, refuse to advertise on account of the war. The collection for advertisements for the six months is $752.00, almost equal to the usual annual collections. There has already been approximately a $500.00 annual increase in advertisements due to the increase in rates and new advertisements. By the end of the next six months I hope to have secured as much again.

4. FINANCE.

A statement of accounts for the past six months follows. All bills are paid to date and there is an increase in the balance of $755.71. Our office expenses have been considerable, but it is being held within the limit of the original estimate for the extra expense of the business management.

FINANCIAL STATEMENT.

To Balance from Presbyterian Miss. Press $2,066.54
,, Subscriptions ... ... ... ... 1,273.57
,, Advertisements ... ... ... ... 752.89
,, Miscellaneous ... ... ... ... 21.41

$4,114.41

By Expense for Exhibit ... ... ... ... $110.00
,, JOURNAL printing (two issues) ... ... 495.97
,, JOURNAL mailing (P. P. July-Dec.) ... ... 76.14
,, Stenographer's Salary ... ... ... 325.00
,, Stationery and Office Expenses ... ... 129.74
,, Stamps ... ... ... ... ... 56.16
,, 10% Commission on accounts paid to Presbyterian Miss. Press ... ... 61.91
,, Miscellaneous ... ... ... ... 37.24
,, Balance ... ... ... ... 2,822.25

$4,114.41

Cash in Hongkong & Shanghai Banking Corp. $2,804.68
Cash on hand ... ... ... ... 17.57

$2,822.25

Balance ... ... ... ... ... $2,822.25

(Money received in January 1915 is still on hand.)

JOHN A. SNELL.
The Treasurer's Report.

There is not a great deal to be said in the treasurer's report. Up to June 30th, 1914, the finances were handled by the Presbyterian Mission Press, but they were then taken over by Dr. Snell who had been appointed business manager for the Journal. This entailed an additional expense for the services of a stenographer and assistant to do the details of the clerical work. The sum of $600.00 per year was appropriated by the Executive Committee for this purpose, but it was done as an experiment, and if not found satisfactory a change can be made. It was felt that the added income from increased number of advertisements, and also from back subscriptions, which it was hoped would be collected by more vigorous urging, would more than pay for this added expense.

Another added item of expenditure has been the travelling expenses of your Executive. It will be remembered that at the Conference held two years ago in Peking it was decided to pay the expenses of the Executive to their meetings. This has mounted up to $428.00, of which a large part is due to the fact that your vice-president lived at some distance from Shanghai, so that the meetings he attended were rather expensive ones. In addition, $200.00 was used for your president's trip to Nanking, Tsinanfu, Peking, and Hankow, at the request of the Executive as noted in the secretary's report. This makes a large item for travelling expenses.

The main expense has been, as usual, the printing of the Journal. The usual circulation is about 625 copies, costing anywhere from $190.00 to $300.00 according to the contents and the number of reprints, etc.

The receipts have come almost entirely from dues and advertisements. In 1913 the amount received from these sources was

<table>
<thead>
<tr>
<th>Dues</th>
<th>$1,875.00</th>
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<tbody>
<tr>
<td>Advertisements</td>
<td>$1,030.00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$2,905.00</strong></td>
</tr>
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From this must be deducted the 10% commission paid to the Presbyterian Mission Press, amounting to $290.50, so that this amount may be considered as saved when taking into account the $600.00 paid for the assistant to the business manager.

For the first half of 1914 the amount received from dues was $892.00; from advertisements, $128.00; giving a total of $1,020.00, less 10% equals $918.00.

In the half year since we have had our own business manager the amount received from dues has been $702.00; from advertisements
### Statement of Accounts from 1st January, 1913, to 31st December, 1914.

#### Receipts:

<table>
<thead>
<tr>
<th>1913</th>
<th>1914</th>
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<tbody>
<tr>
<td><strong>To Balance brought forward from last account...</strong></td>
<td><strong>By Cost of China Medical Journal, November,</strong></td>
</tr>
<tr>
<td>$2,472.69</td>
<td><strong>1912, to November, 1914</strong></td>
</tr>
<tr>
<td><strong>Dues and Subscriptions collected through Presbyterian Mission Press</strong></td>
<td>$3,310.73</td>
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<tr>
<td><strong>Less collecting comm. 10%</strong></td>
<td><strong>Postage</strong></td>
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<tr>
<td>$333.88</td>
<td><strong>Printing, Stationery, and Office Expenses</strong></td>
</tr>
<tr>
<td><strong>Less cheque unpaid</strong></td>
<td><strong>Stenographer's Salary</strong></td>
</tr>
<tr>
<td>$3,005.09</td>
<td><strong>Travelling Expenses of Executive Committee</strong></td>
</tr>
<tr>
<td><strong>Dues and Subscriptions collected Bus. Mgr.</strong></td>
<td><strong>Expenses of Exhibit</strong></td>
</tr>
<tr>
<td>702.73</td>
<td><strong>Balance carried forward to 1915 a/c</strong></td>
</tr>
<tr>
<td><strong>Advertisements collected by P.M.P.</strong></td>
<td><strong>...</strong></td>
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<tr>
<td>$1,207.07</td>
<td>2,822.25</td>
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<td><strong>Less collecting comm. 10%</strong></td>
<td><strong>...</strong></td>
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<tr>
<td>120.70</td>
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<td><strong>Advertisements collected by Bus. Manager</strong></td>
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<tr>
<td>704.61</td>
<td><strong>...</strong></td>
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<tr>
<td><strong>Cash Sales by P. M. Press</strong></td>
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<tr>
<td>$96.90</td>
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<tr>
<td><strong>Less collecting comm. 10%</strong></td>
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<tr>
<td><strong>Sale of Resolutions</strong></td>
<td><strong>...</strong></td>
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<tr>
<td>1.63</td>
<td><strong>...</strong></td>
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<tr>
<td><strong>Book Room Sales by P. M. Press</strong></td>
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<td>$32.05</td>
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<tr>
<td><strong>Less commission 15%</strong></td>
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<td>4.82</td>
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<td><strong>Bank Interest and Exchange</strong></td>
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<td><strong>8,022.74</strong></td>
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I hereby certify that the foregoing Account is a correct Abstract of the Statements rendered by the Presbyterian Mission Press from 1st January, 1913, to 30th June, 1914, and the accounts of the Business Manager from 1st July to 31st December, 1914. The Business Manager's Books have been checked and compared with the Vouchers, and the balance in hand has been verified by the Bankers' Pass Book.

1st February, 1915.

J. N. Hayward, Hon. Auditor.
$704.00, total $1,406.00, without having to deduct 10% commission. Part of this increase in the receipts from advertisements is due to the advertising rates having been increased, but is largely due to the fact, as the business manager shows in his report, that over nine new pages of advertisements have been obtained.

The summary for the last two years is presented herewith.

Respectfully submitted,

H. H. Morris.


The technical report of your Research Committee will be read by title, and will appear in full in the Journal in due course. It may be of interest, however, to explain briefly how the work has been developed during the past biennium, and to make certain suggestions for the program to be carried out by the succeeding Research Committee.

The committee deliberated for a long time over the choice of a problem for this biennium. It was felt that the admirable work initiated and carried out under Dr. Maxwell was sufficiently established, and that new lines might, with propriety, be approached. In pursuing work of this sort, it is essential—if any great degree of actual co-operation by members of the Association is to be secured—to select some problem which does not involve the expenditure of much of the time of our busy missionary physicians, nor require from members the application of either special apparatus or highly technical training.

Accordingly, it seemed wise to this committee to select some statistical study which might be of very general scientific interest, asking members of the C. M. M. A. to contribute material from all parts of China which might properly be worked up at a central place. In order to pursue this program in the best possible way, the committee availed itself of the privilege of augmenting its membership by the co-option of Dr. Harold E. Eggers, especially since he requested the co-operation of the committee in obtaining data for a study of tropical ulcer. Upon Dr. Eggers has fallen the chief burden of working up material received and of interpreting the data made available by the contributions of members of the Association.

It was decided, therefore, to make a study of the flora of ulcers of the extremities with an idea of determining the distribution and character of the lesions known as tropical ulcer. This affection has been known for some time to exist in China, having been reported by Assmy from Chungking and Logan from Changteh. The precise nature of
the organisms concerned and their relation to the lesions of tropical ulcer has been obscure, and but few cases had been studied with care in China.

In placing the plan of work before the members of the Association and asking their assistance, a system of personal communications was used. Some three hundred members, for the most part working in different localities, were asked if they would be willing to co-operate with the committee by furnishing material. More than thirty per cent. of these responded, expressing their readiness to assist. To each of these a personal letter was sent, outlining the study projected and explaining what material was desired. With this letter a package of slides with return postage was sent.

Reports were submitted to individuals on all material sent in. Those members who were especially interested, or who were in a position to provide a large amount of material, were asked to furnish large series of the smears used, and responded graciously and generously to the appeal of the committee. In all, nearly three thousand cases of ulcers were studied. Special mention is made of this method of carrying on the research activities of the Association, because it is believed that it is an unusually effective way of holding the constant interest of members in the work of the committee and in maintaining close personal touch on the part of the members with the problems pursued.

In making suggestions for the benefit of the next Research Committee, we venture to re-emphasize the unique advantage possessed by this Association for carrying on statistical studies, and for the collection of data relating to the geographical distribution of diseases. It is felt that much more accurate results can be obtained in this line by an actual central study of material, rather than in the collection of statements as to the probable presence of a disease in a given locality. Other activities unrelated to this system that might be pursued with profit are:

(a) The investigation of normal physical standards among Chinese. The need of careful studies along these lines has more than once been brought to the attention of the Association by Dr. Duncan Whyte.

(b) To act as a clearing house for those who are working on special problems, either clinical or pathological, by providing references to literature, or data from other parts of China.

In conclusion, we thank the members of the Association for their hearty co-operation in bringing to a successful conclusion the work of the past biennium.

H. S. HOUGHTON.
W. H. Venable, M.D.

President of China Medical Missionary Association.
THE CONFERENCE OF 1915.

In more than one respect the conference just closed was of unusual interest. Fears had been entertained that events connected with the European war would prevent the attendance of many who desired to come. Happily these fears were groundless. As a matter of fact, never in the history of the Association was the attendance at a conference so large. It is reported that one member, whose name should certainly be on our honor roll, travelled no less than fourteen hundred miles in order to be present! Apart from the unique social experiences which made the Peking Conference so memorable, it seems to be the general opinion that the Shanghai Conference of 1915 was one of the most successful ever held. Great credit is due to those who arranged it, and the Association is indebted to the many kind friends in Shanghai who contributed in various ways to make our visit both pleasant and profitable.

Among the features of the Conference deserving special commendation, was the admirable collection of exhibits consisting of models, pictures, diagrams, pathological specimens, etc., illustrating the principal diseases of tropical countries and the measures to be taken for their prevention and eradication. The educational value of this department was enhanced by opening it to the inspection of the public, foreign and Chinese, both during the Conference and after it.
The decided trend towards increased co-operation with the Chinese was even more noticeable than at the last conference, appearing particularly in the discussions concerning preventive medicine and medical education, the history of the formation of the medical school in Changsha being most instructive in this respect. Further, the Chinese who received their medical education abroad, are now sufficiently numerous to make their influence felt in all medical affairs, and several took a prominent part in the proceedings of the conference. These professional brethren desire to work with us for the welfare of their country, and it need hardly be said that we desire to work with them. Only by co-operation can the great task be accomplished which lies before us.

Probably, most will agree that the problems of medical education in China are nearer solution by the adoption of the Report of the Curriculum Committee. In this vast country with its deplorable and urgent needs, its varying local conditions, many dialects, and rapidly changing civilization, it would be very surprising if there were not differences of opinion concerning the character of medical education best suited for present needs. A definite standard has now been set, and for some time to come it may be a wise policy to permit our medical schools to work out quietly their own salvation. It may be safely said, that in doing this, all are assured of the hearty sympathy and support of the Association.

As nothing is perfect in this world, a few gentle criticisms may now be mentioned.

The printing of conference papers, and their distribution to members before the conference began, is admitted to be an improvement, but not a few object to reading them simply by title, unless the papers are inordinately long. Owing to the pressure of many engagements there is little time for reading during the conference, so that a discussion which has not been preceded by the reading of the paper in full, or at least by an adequate résumé of it, is not likely to be as full and informing as it should be. This is a matter which can be arranged as desired, at the first meeting of the next conference.
Again, complaint is made that sufficient time is not given to the consideration of purely medical and surgical subjects. Members wish to know more of what their brethren are accomplishing in hospital and dispensary work, and they are often obliged, so they say, to listen to long discussions on business, educational, and other subjects, which do not always interest them. These men would like to see the work of the conference divided among sections. Others, who also cry for more material, are so omnivorous they desire to devour everything on the programme. As it will be impossible to do this if the conference becomes sectional, they suggest it would be a much better plan to lengthen the conference from four to seven or eight days. Letters to the JOURNAL stating the views of members on this point are needed, as the changes suggested are important, and can hardly be made unless the demand for them is very strong.

Lastly, the doubt has been expressed as to whether, in such a large gathering of earnest Christian men, we made the most of our spiritual opportunities. In this connection may it be suggested that, irrespective of all political divisions, we should sometimes remember those of our comrades who are ministering to the sick and wounded in the present European war.

As these are the only criticisms, and as they deal with matters which can be easily remedied should the criticisms prove to be well founded, we have good reason to be satisfied.

Future Work.
A word in conclusion. In planning future work, it is hoped that more of our members will find a place for the preparation of medical papers, especially if it is desired to lengthen the conference programme, so that our next biennial meeting may be even more helpful than the last.

Motor Ambulances.

Any of our readers who will refer to our advertisement columns will see a generous offer made by Henry S. Wellcome, Esq., of the Wellcome Bureau of Scientific Research. With the desire to minimise the suffering of wounded soldiers of all nations, prizes of the value of £2,000 sterling are offered for the best designs of a field ambulance-body. The competition is open to the citizens of all nations.
THE PRESIDENT'S LETTER.

The conference of 1915 is over, and it falls to the lot of your newly elected president to call the attention of the members of the Association to the work that is being done, to remind them of the duties and privileges which their membership entails upon them, and to indicate briefly the work which we have mapped out for the future.

First and foremost, we would extend most cordial greetings to the members of the Association who were not able to attend the conference. We know that many were kept from coming by the imperative call of duty, but it is earnestly hoped that in future a far greater number of our members will consider it their duty to attend these conferences. Their value in stimulating us to better work more than compensates for any sacrifice we may make in attending them. We must ever keep in mind that the great aim of our Association and of these conferences, is to link up the units of our work which are scattered over the vast area of this country and adjacent oriental lands, and to promote greater sympathy and co-operation between these divided units, in order to make our work more effective. We are far more dependent upon each other than many of us realize. There is not one of us who cannot improve his work by studying the methods of others, and if our own work is so poor that no one else can get any good ideas from observing our methods, it is high time for us to be taking an inventory.

Then there is the mutual interdependence of the different forms of work. For instance, the hospitals cannot get along without the medical schools, and the medical schools cannot get along without the hospitals. The China Medical Journal is the organ through which we communicate with each other, or in other words it is our nervous system. The Medical Journal in Chinese is also indispensable to us. It is the means through which our Chinese graduates, who do not know English, are to keep in touch with the advance of medical science.

In regard to the conference that is just over, it seems to be the unanimous opinion of those who attended it that a new record was made in the high order of the papers presented, and in the interesting and instructive exhibits that were made. There are other things also which give this conference the pre-eminence. We would mention first the increased membership and attendance of our Chinese colleagues, which are causes for sincere thankfulness and congratulation. This thought was emphasized a good many times during the conference, and when the statement was made in regard to our Chinese colleagues that "they must increase and we must decrease," it was received with
Editorial.

hearty applause. We trust that the National Medical Association of China, which was organized during the conference by our Chinese colleagues, will prove of great service in promoting the co-operation with the Chinese upon which so much stress was laid during the conference.

We would like to call special attention to two very important steps that were taken by the Association at this conference,—the appointment of a Council on Public Health and Hygiene, and the appointment of a Council on Medical Education. We cannot lay too much stress upon the importance of the work that is assigned to these two councils. Their formation marks an epoch in the history of our Association.

The Association at this meeting rightly laid great stress upon its need of an Executive Secretary, and also of a permanent Secretary for Translation and Terminology work. The task of filling these offices was not completed during the conference and was passed on to the Executive Committee. It is earnestly hoped that suitable men may be found for these important positions.

We have many problems before us. In addition to those of translation, sanitation, medical education, etc., which have already been mentioned, we must bend our energies toward the investigation of the pathology, etiology, and differential diagnosis of many important diseases, such as the different forms of splenomegaly and the fevers of unknown origin, and also the determination of the physical and physiological differences between the Chinese and other races.

We are engaged in the greatest work in the world. May God help us to do our full duty in working for the spiritual and physical regeneration of the vast multitudes who need our help.

W. H. Venable.

AFTER THE CONFERENCE WHAT?

The Shanghai Conference wisely made provision for carrying out the public health activities of the Association in the interim between conferences. A Council on Public Health was created and the following members elected to serve; Dr. H. S. Houghton, F. C. Yen, F. J. Tooker, Ida Kahn, H. J. Smyly, and W. W. Peter. The Council held meetings on the two days following the adjournment of the conference. Dr. Houghton was elected chairman, and Dr. Peter, secretary. Upon request, the National Committee of the Young Men's Christian Association has given office room to
the Council in its rented quarters, 4 Quinsan Gardens, Shanghai, to which all communications to the secretary should be addressed.

As to the work the Council is already prepared to do, a notice of the Press Bureau appears elsewhere in this issue. By the next issue of the Journal the Council hopes to be able to make a definite report of financial support and plans for a Lantern Slide Exchange. It contemplates sending some of the Public Health Exhibit to Kuling and perhaps Pehtaiho this summer. To this end it has asked for estimates from the Lecture Department of the Y. M. C. A., covering the cost of building suitable shipping boxes and crates for the Exhibit.

The Council will be glad to receive suggestions and requests from individuals and branch organizations so that it may the better be able to carry out the wishes of the Association.

RESEARCH WORK BY THE C. M. M. A.

There appears, on another page of this Journal, a tentative schedule of the work proposed by the Committee on Research of the Association. In order to make it effective, the active cooperation of as many members of the Association as possible will be essential. Its entire success depends on the help which you, as an individual, are prepared to give; and lest it be felt that these individual demands are too great, a few words of explanation may not be out of place.

In the first place, it is not proposed to request of each member data, or material, on each of the subjects suggested by the Committee. Select the problem, or problems, in which you are particularly interested, and lend your assistance to that; if you can help with more than one, so much the better,—but at least help on one of them. On some of them the Committee desires to lay greater stress than on others. This is particularly true of those connected with the establishing of physiological and anatomical standards for the Chinese, which it is felt must precede any accurate investigation of many of their pathological problems. Your assistance in this work is greatly needed, for it will be only by the comparison of statistics from the whole of China that any accurate conclusions can be secured. In the rank of secondary importance, at least for the time being, the Committee places the suggested pathological
Editorial.

problems; indeed, it is doubtful if the work on malaria will be actually taken up at this time, because of certain practical difficulties connected with it.

The final schedule will be mailed to all members of the Association shortly. Consider it carefully, select the work in which you wish to help, and return it to the sender promptly. Above all things, remember that in work of the magnitude and importance of that proposed for this biennium, the Committee will be able to play only a directing part; the actual collecting of the data devolves on you, and such assistance as you can give, be it much or little, is absolutely necessary.

Note by Editor:—It is inevitable that in an Association like ours, there will be many who will at once decide that it is beyond their power to help. Let us consider one concrete example. Are there not many hospitals in China whose overworked staff decided some years ago that they could not find the time for systematic faecal examination? And yet as a direct result of the work of the Research Committee this systematic faecal examination is now being performed to the benefit of many a patient and yet shall we have the hardihood to repeat that “we are too busy”? Those who believe it may just be possible that they can assist in clearing up one little corner of the primeval forest in China will answer the Research Committee accordingly.

Schedule of subjects in regard to which accurate data are lacking in China.

A. Anatomical. Height, weight, and chest circumference both of adults and of young people.

Obstetrical. Female pelvic measurements, e.g., inter-cristal and inter-spinous diameters, external conjugate, etc.

Foetal skull: suboccipito-bregmatic and other measurements.

B. Physiological. Blood: specific gravity; red cells per cubic millimetre; haemoglobin per cent.; white cells per c.mm.; Arneth’s picture, etc., etc.

Urine. Total quantity in 24 hours; specific gravity; chemical composition.

Circulatory system. Size of heart and state of vessel walls; pulse rate and blood pressure, with effect of exercise upon these.

Alimentary canal. Motility, composition of gastric juice, hepatic and pancreatic function, etc., etc.

C. Pathological. Geographical distribution of the different varieties of malarial parasite.

Investigation of the different varieties of enlarged spleen met with in China, with a view to their differentiation.
COMMUNICATION FROM PUBLICATION COMMITTEE.

It is all important that the Association realise the very unsatisfactory state of its Publication Committee, (see its Report and the retiring President's address.) During the last two years instead of more translation having been done the contrary has been the case. New translators are exceedingly hard to find, and those who have helped in the past are so increasingly occupied with other duties that they can give but little time to translation and revision. It is a grave reflection on our methods, that while there are over fifty members engaged in teaching in Medical Schools, not to mention those who train their hospital assistants, there is hardly one set apart to do this all important literary work. It is another instance of the haphazard, inco-ordinate way that mission work is carried on. Unless medical missionaries, their local councils, and their boards, are prepared to allow time to be given to this work, we had better hide our diminished heads and hand over the work of medical education in Chinese to others.

Last year the executive endeavoured to obtain the services of Dr. McAll but failed. Dr. McAll has now been appointed Associate Editorial Secretary, but unless he is given time for the work, the appointment is an empty one. Only if the men and the means can be secured (see the first and fifth resolutions on this point passed at the conference) will the situation be properly met.

Meanwhile the Publication Committee has asked that Drs. McAll, Cormack, Ingram, and Shields be allowed to devote half their time to the Publication Committee's work, and it is expected that Dr. Mary Fulton may be able to give the whole of her time. It is to be fervently hoped that those concerned will see that these experienced translators be given the time needed.

The Publication Committee had a well attended session for a month, beginning before the conference. Its time was almost entirely taken up with terminology. The test of years, and the evergrowing influx of Chinese who have taken a medical course in Japan, have necessitated a thorough overhaul of our terminology in the direction of simplification and approach to Japanese terms. We were fortunate in obtaining the help of the science editor connected with the Commercial Press, and in getting into touch with the Educational Association of Kiangsu Province. This Association kindly arranged a meeting of the Committee with representatives of the Soochow and Hangchow Provincial Medical Schools, and members of the editorial staffs of the large Chinese publishing houses. Joint work in revising the terms is to be under-
taken and eventually the government is to be asked to appoint delegates to help in settling a standard terminology.

Meanwhile a stop-gap edition of the Lexicon is being prepared containing some important changes, but it cannot be issued until after summer. Preparation of the lists of terms to be circulated among our new collaborateurs must take first place. It looks as if the whole time of the writer (at the best he can give but a half day’s work) will be taken up with terminology and prevent his giving attention to editorial or translation calls. It has been a bitter disappointment to him to find that the conference has passed, leaving our publication affairs pretty much as they were before.

PHILIP B. COUSLAND.

An Appreciation of the Conference Exhibits.

Material from the following countries was to be seen in the Public Health Exhibit at the Shanghai Conference; China, Denmark, England, Germany, Ireland, Japan, Portugal, Scotland, United States, with some from the Philippines and Hawaii.

The size of the Exhibit may be judged from the fact that there were over 2,000 square feet of maps, charts, diagrams, cartoons, paintings, placards, tracts, epigrams, and pictures. In addition there were several large mechanical and electrical devices, three illuminated lantern slide cages large enough to accommodate 150 slides each, books from all of the publishing houses in Shanghai, models, stands, pathologic specimens of plague and tuberculosis, and material of one kind or another bearing on special subjects, such as rat-proofing, tarbagan traps, masks, hospital management of sanitary conveniences, etc. To have the Exhibit properly displayed would require a bare room with 2,000 square feet of floor space, and well lighted. The cost of the Exhibit, not counting the time of voluntary contributors, was $4,803.00 Mexican. For the Conference, the Exhibit was housed in four places: the lobby and hallway leading to the meeting place; Martyrs' Memorial Hall, four sides and tables and shelves in the rear; a small room off the stairway leading to the basement gymnasium for the Tsinan Institute Exhibit; and a room 12 by 15 feet in the gymnasium for the Manchurian Plague Prevention Service Exhibit.

Probably no one got out of the Exhibit all that it was possible to get. There was too much of it for the short time the delegates were together. The same may be said of the delegates of the East China Educational Association, and of the Educational Union, both of which organizations met the week after the medical conference. English-
reading Chinese came to the exhibit and often spent hours at it, and then came back again. But a number on being asked for their impressions replied, "It's all so new, and there is too much of it."

But the particular purpose of these few lines is not to raise the question of what shall be eliminated and added, or of how this Exhibit which represents a considerable outlay of time and money can be used in the future, but to record an appreciation which all of us must feel. The Exhibit stands as an unparalleled example of co-operation in this particular field of endeavor in China. Government, community, municipal, and missionary physicians, lay men and women who could draw, paint, letter, organize material, and construct difficult apparatus, all worked together in making such an exhibit possible.

Dr. Wu Lien Teh, whose Manchurian Plague Prevention Service Exhibit elicited much favorable comment, himself came down from Harbin, Manchuria, several days before the opening of the conference to mount pathological specimens and see to the setting up of his exhibit. Dr. Stanley detailed a number of his associates to prepare maps, charts, and other material, showing some of the work done by the Municipal Health Department of Shanghai. The Lecture Department of the National Young Men's Christian Association took full charge of the work of organizing, mounting, and constructing the greater part of the material gathered together for the exhibit. One morning at prayers there were seventeen present, for the staff had to be increased up to this number for the time being. The week before the conference was a crowded one. The workmen kept at it not only all day but in the evening. And to have the exhibit ready in time, these Chinese workmen finished up the week's work by one continued stretch of twenty-three hours without sleep and only time off for meals.

In view of all that so many different people had done, it was a perfectly fitting thing for the conference to acknowledge by a special vote of thanks the splendid work done by all together. This vote of thanks includes over seventy people, not only in Shanghai, but in many parts of China. So in a very special way, it was 'our exhibit' from beginning to end. At the conference, and in letters written afterward, there was a tendency to give one man the credit. From the above account it can be seen that this tendency was quite wrong. We all did it together, even to the delegates who sent nothing beforehand, but came prepared to appreciate what the others had done. It all goes to show that the time is ripe to emphasize disease prevention. We all believe in it. We are most of us ready to help where we can. The building and appreciating of this Exhibit just gave us an opportunity to express ourselves.
Scholarships for Chinese Nurses.

The China Medical Board of the Rockefeller Foundation has voted to establish five scholarships for Chinese nurses to enable them to prepare themselves in nurses' training schools in the United States for responsible positions in hospitals and training schools in China. The scholarships will amount to $300 gold each, and an additional sum of $400 gold will be allowed in each case to cover the expenses of the journey to the United States. A similar allowance will be made for the return journey. Appointments will be made for one year only, but those scholarship holders whose work proves satisfactory may be considered for reappointment for such a period as may be necessary to enable them to complete their course of study.

Candidates for these scholarships must fulfill the following requirements:

1. They must be graduates of a girls' high school, or have such other preparation as will enable them to profit by a course of study in the United States.
2. They must be able freely to read, write, and speak the English language.
3. They must be graduates of a nurses' training school or students of not less than one year's standing in such a school.
4. They must be in good physical condition.

Applications for scholarships should be addressed to the China Medical Board of the Rockefeller Foundation, 61 Broadway, New York, and should contain the following information:

1. Name in full, in Chinese characters, and in Roman letters.
2. Age.
3. Whether married or single.
4. Present occupation and address.
5. Name, address, and occupation of father.
6. Schools and colleges at which preliminary education was obtained, with dates.
7. Nurses' training school attended (when and how long).
8. Diplomas or degrees obtained, with dates.
9. Subsequent hospital experience if any, with names of institutions and dates.
10. Names and addresses of teachers, doctors, or nurses under whom the applicant has worked, and from whom further information can be obtained if necessary.
11. Certificates from teachers must be submitted showing that the candidate meets the requirements as to education, knowledge of the English language and nurse's training. A certificate by a qualified physician as to the physical condition of the applicant will also be required.

Applications should be filed before July 1st, 1915.
Notice from Council on Public Health.

The Council on Public Health, created by the recent Medical Conference in Shanghai, is now prepared to send newspaper copy on health subjects to all parts of China. For the next few months copy will be sent once each month to subscribers. Each article will be from 2,000 to 5,000 characters long. Dr. W. E. Macklin, of the Medical Department, University of Nanking, has consented to do a large share of the regular editorial work. His first article is called

天喜牛痘循先謹防

It is the purpose of the Council to provide interesting articles on various subjects such as tuberculosis, smallpox, sewage, flies, water supply, etc., as these may be required according to time and season. The only condition to be met by subscribers at the present time, is a promise to hold the copy till the first issue of their paper after the first of each month (Universal Calendar).

It is desired that the contents of this notice shall be brought to the attention of those in every city who have charge of Chinese newspapers. A copy will be sent on request. Address: The Secretary, W. W. Peter, M.D., 4 Quinsan Gardens, Shanghai.

Book Review.

The Lettsomian Lectures on Dysentery. Delivered before the Medical Society of London, 1914, by F. W. Sandwith, M. D., (Durh.,) F. R. C. P., (Lond.,) Gresham Professor of Physic; Lecturer on Tropical Diseases, St. Thomas's Hospital, etc., Reprinted from The Lancet, September, 1914.

The members of the China Medical Association who have had the privilege of listening to the lectures of Dr. Sandwith at the London School of Tropical Medicine, will be particularly interested in this admirable résumé of our knowledge of a disease with which in this country we are only too familiar. But the pamphlet is so valuable, it should be in the hands of every physician stationed in a tropical or semi-tropical country.

After giving an interesting history of the disease, tracing its connection with wars and famines, and showing how slowly it came to be admitted that it was water-borne, and that it can also be conveyed to man by contaminated food, flies, and human carriers, he passes to the differentiation of the two chief types, and states it is now a broad, well-established fact that most of the dysentery of the tropics is amœbic, while much of the dysentery of temperate climate is bacillary.
The chapter on the entamoebae of the intestine is very instructive. Besides the amoeboid organisms resembling the free-living Amoeba limax, no less than twenty different species have been described by enthusiastic observers. Most of these are now regarded as modified or involution forms either of the harmless organism Entamoeba coli, or of the pathogenic Entamoeba dysenteriae (E. histolytic, E. tetragena). The most important of the modified forms, E. Minuta, is now known to represent the pre-encysting generation of the pathogenic entamoeba. "With a little experience it is easy to recognise and identify in faeces the encysted forms of either E. coli or E. dysenteriae, but the identification of the free unencysted forms presents such greater difficulties, even to the expert."

After describing the pathological anatomy and giving a clinical description of amœbic dysentery, the author refers to the difficulties of diagnosis, and states that in 1,000 post-mortem examinations in Calcutta, Rogers found that amœbic dysentery had been diagnosed in several cases as tubercular diarrhoea, simple diarrhoea, or peritonitis, while single cases were thought to be the following: tubercular peritonitis, hepatitis, gangrene of rectum, intestinal obstruction, broncho-pneumonia, malarial fever, and anæmia.

For treatment the author relies, of course, upon emetine hydrochloride injections, but followed by bismuth subnitrate, and speaks well of "amebetine," (which consists of the three known alkaloids of ipecacuanha unseparated from each other), as a cheap substitute for emetine hydrochloride.

Passing to Bacillary Dysentery, a third type is mentioned, that of the Bac. dysent. El Tor, in addition to the Shiga-Kruse and Flexer type, but it may yet be proved that the El Tor bacillus is identical with one of the other bacilli. The pathology and symptoms of the disease are then given, and it is pointed out that it is not always easy to differentiate the bacillary from amœbic dysentery, so that "a negative report from an ordinary microscopist may sometimes be disregarded, if the patient has been in a dysenteric country, until a week of emetine injections has proved useless." In the thousand necropsies already mentioned, Rogers found that twelve out of thirty-six cases of bacillary dysentery had been wrongly diagnosed in the wards, but five of them had only lived for a day or two after admission to the hospital. Simple diarrhoea and tubercular diarrhoea were the common errors, and after them, phthisis, acute yellow atrophy of the liver, cholera, remittent fever, and one case meningitis had been suggested.
The China Medical Journal.

The author next considers the vexed question to whether "ulcerative colitis" is not identical with bacillary dysentery, points out the dangers of "carriers," draws attention to the extraordinary prevalence of the disease in lunatic asylums, and gives the treatment. He concludes by saying that "in any case of doubtful origin, the combined treatment of the patient by emetines and by polyvalent antidysenteric serum is, in my opinion, both rational and humane."

The price of the pamphlet is not given. Probably, copies can be obtained by writing to the author.

E. M. M.

Advertisements.

The special attention of subscribers is called to the advertisements in this issue, all of which have a peculiar interest and many of which are new.

Correspondence.

The Editor of The Journal.

DEAR SIR: The Society of Chemical Industry in Basle have gotten out an advertisement for one of their preparations, "Orypan," in which St. Luke's Hospital, Shanghai, is named as one of the hospitals where "through observations and clinical trials on human beings it has also been ascertained that Beri-Beri can be cured in a comparatively short time through administering Orypan." I would like to say that this use of the name of St. Luke's Hospital is absolutely unauthorized, no permission ever having been given for such use.

Thanking you for your kindness in publishing this, I remain, sincerely yours,

H. H. Morris.

Shanghai, March 1st, 1915.

The Editor of The Journal.

DEAR SIR: The following extract from a private letter written by Dr. Colin F. Simpson of the Moukden Medical College staff, who left in November for the front, and was accepted by the Russian military authorities for service in the Army Medical Corps in Poland with the rank of Lieutenant-Colonel, may interest a number of readers of the JOURNAL, so will you please insert it?

Yours truly,

S. A. Ellerbeke.

* * * *

"We had a great time in Lodz. But let me first tell you that when I came to this hotel in Warsaw I fell in with a Prince Molenski and within two days had left with him and the Princess for Lodz. The city of Lodz was filled with wounded when we arrived, the result of a big battle that had begun several days before our arrival and was still going on. The Prince then had to leave for Warsaw on Red Cross business, and at the same time he was to bring the English sisters [of St. John of Jerusalem] back with him. In the meantime the Princess and I worked in a huge school packed with wounded; I think that in four days we had perhaps four hours sleep. Moreover, the noise of the guns didn't help us to sleep any the more soundly even when we had the chance. What with aeroplanes dropping bombs, and shrapnel and bombs falling in the street all over the place, it was a picnic. At one time it seemed as if the whole city would soon be on fire; we had women and children carried into the laza-
Correspondence.

British Doctor's Fine Work at Lodz.

"The work of the Red Cross and hospital organizations during the evacuation of Lodz (says a 'Chronicle' message) was notably fine. The town had been the crux of the fighting for nearly a fortnight and 18,000 wounded had to be removed in less than 48 hours. Naturally the troops and army transports generally had precedence over everything, but in spite of limited resources the task was accomplished triumphantly and all the wounded were brought to Warsaw. Here the Grand Duke and Grand Duchess Cyril personally supervised the establishments to deal with the flood of cases. The Duchess spoke to me in terms of the strongest admiration of the work of the British Doctor Simpson, and the British sisters of St. John of Jerusalem, belonging to the flying sanitary column which played a conspicuous part in withdrawing the wounded."

The Editor of The Journal.

Dear Sir: At the close of the recent Conference a meeting of medical women was called to discuss certain questions connected with the progress and education of women in China along medical lines.

The Medical Education and Work of Chinese Women.

Since there are already three medical schools for women in China, and as about one-fifth of the members of the Chinese Medical Women's Association are women, it was felt that the time was ripe for a more progressive and concerted action on the part of the women physicians of China to promote the advancement of medical education for women, and to maintain a high standard of efficiency in the profession.

It was hoped that by encouraging the supply of efficient medical women and nurses, the treatment of Chinese women—particularly in obstetrical and gynecological cases—could be undertaken only by physicians of their own sex.

It was resolved that a stand should be made against the mixing of the sexes in hospital wards, and that, where hospitals for men and women were, for convenience, in close proximity, they should be very carefully and clearly separated in their administration.

It was considered undesirable that Chinese women nurses should attend men patients, since Chinese men could be trained very efficiently for the nursing profession, and such service was in accordance with Chinese custom and usage.

It was further resolved that it was the duty of women physicians to discourage nurses from holding clinics (which is quite a different matter from nursing or the rendering of First Aid), or in any way confusing the professions to the misleading of the Chinese. The highest standard should be insisted upon in both the nursing and medical professions in training and practice, and educated Chinese women should be encouraged to enter either line of work.

A committee of medical women was formed for the furtherance of these matters during the next two years, and it is hoped that all medical women in China will give their hearty support and co-operation, since the future of the medical profession in China will depend upon its moulding now.

The members of committee appointed were Drs. Garner, Ethel Polk, and Philips, and also Drs. Leonard and Tsau subject to their consent.

The first active step taken was the election of two representatives, Drs. Love and Allsop, to the Educational Association meeting February, 9th-10th, to present papers urging those engaged in the training of medical women to raise and maintain the standard of efficiency, and advocating a course of home hygiene in the schools.

All medical women in sympathy with this movement are requested to send their names to the Secretary, Dr. Ethel Polk, Soochow, and papers are invited on the above questions, to be offered through the committee to the China Medical Journal, the Recorder, etc.
I shall be glad if you will kindly insert this letter in the next number of the Journal.

Yours sincerely,

E. MARGARET PHILLIPS, Chairman.

KAIFENG, Honan, February, 1915.

To the Editor of The Journal.

DEAR SIR: In a recent issue (September, 1914), you had a letter from "A Matron in a Men's Hospital in China." The writer has kindly sent me the extract but leaves me to guess the name. "Matron" writes in a very kind way and deals generously with what appears bad treatment.

As I am the dashed doctor of the article, will you allow me a brief defence. The public lecture referred to was before twenty nurses of a missionary association which meets in Bedford Square, London. I spoke from notes, etc., and someone present used these to send a digest to the Nursing Times. The "lecture" has suffered in the reporting; my remarks were emphatically limited to my own experience of an isolated country hospital, where I am fifty miles from a medical neighbour—two days by road—and I live among a people still back in the centuries. Emphasising the limits of my sphere, I proceeded to give my ideas. These limitations are entirely omitted by "Matron." I presume she is in a large city, probably with a large European colony; maybe she lives under the British Flag—out of China—in a port. My place has two English homes and is an isolated colony of four adults. I have worked in this isolation since 1898, and am quite prepared to find myself behind the times. How long has Matron been out? I cannot of course say. My remarks were based on my experience, and applied to stations of a similar kind. Maybe there are no others, if so my remarks are done with.

I "gave out" that midwifery was absolutely untouched, and that owing to country prejudice I could not do it. The need I knew to be really terrible. Routine surgery for men and women I did manage to get through. But this great untouched need, I thought a nurse with special midwifery training would find to be a sphere of spheres, such a call as would justify a nurse in giving up home work to go and fill. Matron's description of her work is very fascinating, but the sphere I tried to describe is, I think, even more fascinating.

The conditions I left to my successor at furlough time were inexcusable, and I am quite prepared to find them greatly improved when I get back. Surgery has pressed me incessantly, and were the hospital to be judged by the operation list we might secure a slight tempering of Matron's castigation. That list after all is the index. The conditions of a mere men's hospital in the Flower Land are well known, and I frankly own the conditions of mine are no exception.

Do we long for those benefits Matron describes? Of course we do, and have for years. One feels a dull aching as ideal after ideal has gone overboard due to the isolation and stress of a busy country hospital. "Matron" hints at a solution—men she has trained—that seems promising; maybe she would prefer that to seeing an English matron in such isolated places in charge of men's hospitals. Maybe we are at one after all!

A reference is made to the Bb with Yankee frankness. To cut a cash for each "scented lady,"—as the mighty atom is locally known,—suggests a possible reduction in the wages bill, and possible resignations. I haven't had time to search, and have never seen one in my hospital. I have heard from others that they existed, but one can only give one's experience, and that is what most often tells, though sometimes woefully misleading, as in this case.

Yours sincerely,

E. F. WILLS.


To the Editor of The Journal.

DEAR SIR: The following is an answer to the enquiry made by Dr. M. C. Poulter as to the preparation of native absorbent cotton.

Take of the best quality of carded native cotton batting any desired quantity, and boil it well in a 5% solution of potassium or sodium hydroxide for one-half hour, or until the cotton is entirely saturated with the solution, and the alkali has saponified all oily matter. Then wash thoroughly to remove all soap and nearly all alkali; press out the excess of water, and immerse in a 5% solution of chlorinated lime for 15 or 20 minutes; again wash, first with a little water, then dip in water acidulated with hydrochloric...
acid, and thoroughly wash with water; press out the excess of water, and again boil for 15 or 20 minutes in a 5% solution of potassium or sodium hydroxide; now wash well, dipping in the acidulated water and washing thoroughly with pure water, afterwards press out and dry quickly.

Truly yours,

V. K. Dzuu.

HANKOW, January, 1915.

To the Editor of The Journal.

DEAR SIR: With regard to the preparation of native absorbent cotton for surgical purposes, I doubt if it is a wise expenditure of energy for Mission hospitals to undertake this work, as prepared cotton at very reasonable rates can now be purchased in Shanghai and elsewhere. At the same time, purchasers of cheap supplies of cotton-wool from unknown firms should always weigh their purchases for obvious reasons.

Yours truly,

ECONOMY.

February, 1915.

To the Editor of The Journal.

DEAR SIR: How to make cotton absorbent? I would say that our experience in using borax has been fairly satisfactory. Native cotton wool is put into large bags of coarse cloth, about one catty to a bag. These are boiled in a large Chinese wash "kwoa." About an ounce of borax to a gallon of water is used. The bags of cotton are kneaded vigorously with a heavy piece of wood while boiling, and frequently by hand in the process of drying. When dry it may be sterilized in these same bags or in smaller packages as may be needed. It is not so absorbent as that bought of drug-firms but serves very well for our general run of cases.

Respectfully,

G.

SHANTUNG, February, 1915.

PERSONAL ITEMS.

Immediately after the Conference, Dr. James L. Maxwell, of Tainan, Formosa, our newly elected Vice-president, left on furlough for England, via the Siberian route. He was unable to obtain an accident insurance policy covering the journey, nevertheless, we trust he will reach his destination in safety.

Dr. W. J. Pell, Wesleyan Missionary Society of Tayeh, Hupeh, gained his F. R. C. S., last summer. On the outbreak of the European war he was still in England. He volunteered at once for service as a medical officer, was accepted, and a week later was in Belgium. He writes that for two months he was never out of the firing line, and during that time was only once in a decent bed, and rarely was able to change his clothes. Arrangements are much better now in this respect.

After five years' work in China as the colleague of Dr. Arthur F. Cole, of Ningpo, Dr. B. Score Browne has returned to England and joined the Army Medical service. He is now in Belgium, most probably, in charge of a large hospital under distinguished London surgeons.
Dr. Neal of Tsinanfu, with his family, left Shanghai for the United States on February 26th. He has not yet been able to reach a definite decision concerning the office of Executive Secretary which is offered him. Dr. and Mrs. Cousland sailed for Japan by the same steamer. Dr. Cousland is not as strong as he should be, we regret to say, but he expects to do a great deal of literary work in Japan as Editorial Secretary of the Publication and Terminology Committee.

Twenty-five members of the Church Missionary Society, including six doctors and nurses, stationed in German East Africa, Palestine, or Turkish Arabia, are prisoners either in the hands of the Germans or Turks. Dr. Sterling, of Gaza, Palestine, was actually in a prison for several days, his wife, however, being permitted to bring him his daily food. Ordinarily a very busy man, he rather enjoyed the enforced leisure, as it gave him a good opportunity for reading.

Dr. G. Duncan Whyte of Swatow also has more time for reading than usual, as he is down with a badly sprained ankle.

Dr. Tatchell of Hankow writes that his very able colleague, Dr. W. S. Haigh, who joined the mission only a short time ago, has volunteered for Red Cross work in Servia and been accepted, so that the much needed assistance to which Dr. Tatchell had been looking forward will not be forthcoming for some time. These are strenuous and sorrowful days.

Dr. MacWillie, American Church Mission, Wuchang, left recently for the States, on furlough, with Mrs. MacWillie and two children.

**BIRTH**: At Shoka, Formosa, on December 16th, 1914, to Dr. and Mrs. Landsborough (E. P. M.), a son.

Since the last issue of the **Journal**, Dr. Allen C. Hutcheson, its former editor, has been obliged to leave for home on account of ill-health in the family. We hope he will return in due time with himself and family in the best of health.

**N. B.—**Information of births, marriages, deaths, departures from China and arrivals, and other items of personal interest, are desired for this column. It is well to keep in touch with each other as much as possible.

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**NOTICES.**

During the conference a wooden box was received, containing dried pathological material. No communication was sent with it, and the box itself is without a single mark indicating either the sender, or particular consignee. Will anyone interested in its disposal communicate with Dr. W. W. Peter.

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**PHYSICIAN WANTED.**

For particulars apply to: Dr. W. F. Adams,

or to the Editor C. M. J.